



# Newsletter<sup>1/2015</sup>

Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence

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*Dear Reader,*

*It is my great pleasure and honour to have an opportunity to introduce the first 2015 edition of the JCBRN Defence COE Newsletter. I have joined the COE family in September 2014 as a new TSD Director increasing by that the number of Polish personnel to 2 officers. Having a background of working for international organizations in the past I have been positively impressed from the very beginning by the professionalism and competence of the COE staff. I am not completely alone with such a statement. Just after a bilateral talk between Czech Republic and Sweden in November 2014, Advisor to the Minister of Swedish Defence just called our center as the best he has ever visited.*

*It is absolutely important to say that the last six months have been very essential and constructive for the COE. We have accomplished a great deal of work during that time, however we must keep in mind that even more challenges may await us in the future. In November 12, 2014 we have witnessed a spectacular day in the history of JCBRN Defence COE, namely the NATO CBRN Reach Back Operations Room was ceremonially opened in light of TV cameras and in the presence of journalists. Among the distinguished guests there were the First Deputy Chief of the Czech General Staff and a representative of the NATO Weapons of Mass Destruction and Non-Proliferation Centre. This substantial event has been even noted by The Secretary General's Annual Report 2014 under part regarding countering terrorism. However, every COE member is aware that it is barely beginning of the long road to reach Full Operational Capability.*

*As everyone is aware, in the last year our COE received the NATO's highest grade in its assessment provided by the ACT Quality Assessment Team of Experts. The COE met or exceeded the minimum criteria in all assessment areas, thus we received Unconditional Quality Assurance Accreditation. I would like to encourage everyone to read about these events and follow-on actions in detailed articles. What is more, the 1/2015 Newsletter also reflects a wide spectrum of COE activities such as courses, exercises and a permanent support to other organizations and bodies. We cannot forget about the experimental part of the COE portfolio that always plays a significant role in our actions therefore the item covering this topic is also recommended for reading.*

*Finishing this introduction I would like to quote Mr. Dag Hammarskjöld, Former UN Secretary-General, "The pursuit of peace and progress cannot end in a few years in either victory or defeat. The pursuit of peace and progress, with its trials and its errors, its successes and its setbacks, can never be relaxed and never abandoned". That seems to be a suitable message for the COE's society taking into account challenging 2015 year and also a very critical time for security in Europe, and across the world.*

*Andrzej A.*

COL. Andrzej PACZKOWSKI (POL-AF)  
Transformation Support Department Director

# The CBRN Reachback Operations Room

NATO's efforts to counter terrorism include projects to develop and enhance capabilities that fill critical shortfalls and meet NATO's priorities. At the Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence (JCBRN Defence COE) in Vyškov, Czech Republic, NATO's first CBRN Reachback Element (RBE) and Reachback Operations Room has been established.

November 12, 2014 was a very important day in the history of JCBRN Defence COE as the NATO CBRN Reachback Operations Room was ceremonially opened. Among the distinguished guests were the First Deputy Chief of the General Staff LtGEN Josef BECVAR, a representative of the NATO Weapons of Mass Destruction and Non-Proliferation Centre Mr. Axel ANGELY, the Director of Defence Policy and Strategy Czech Republic Ministry of Defence Mr. Jan JIRES, and Rector of the University of Defence BrigGEN Bohuslav PRIKRYL. Also attending the ceremony were representatives from the JCBRN Defence COE Sponsoring Nations, the NATO International Staff Emerging Security Challenges Division, NATO International Military Staff, as well as representatives from the Ministry of Defence of the Czech Republic & Armed Forces of the Czech republic.

The RBE demonstrated their capabilities and equipment using a simulated CBRN scenario to highlight various analytical capabilities as well as cooperation with secondary network partners.

NATO Deputy Assistant Secretary General, Dr. Jamie SHEA participated via video teleconference to observe the demonstration and to provide congratulatory comments. Following the demonstrations, Mr. Axel ANGELY, LtGEN Josef BECVAR and COL Jiri GAJDOS conducted the official ribbon cutting ceremony.

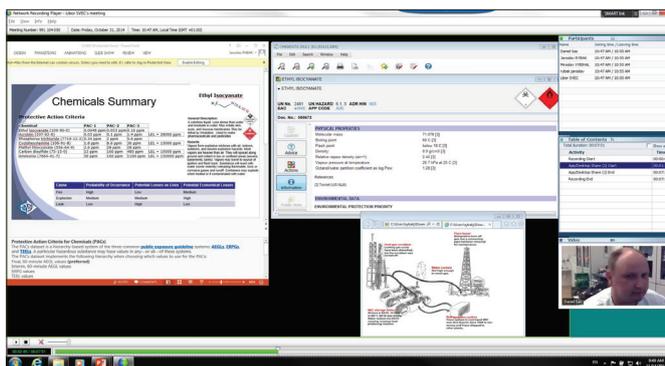
The requirement for NATO to have access to its own dedicated CBRN Reachback was first conceived in 2004. Following a restructuring of the organization of the JCBRN Defence COE in September 2013 to meet the CBRN Reachback capability requirements, the RBE declared Initial Operational Capability in January 2014 with the expectation to meet Full Operational Capabilities by 1 January 2015. Utilizing funding from the Defence Against Terrorism Programme of Work (DAT POW), explained in greater detail in a separate article of this newsletter, the CBRN Reachback capabilities took shape. Another critical milestone was the development of the NATO CBRN Reachback Element Concept of Operations (NATO CBRN RBE CONOPS). Operating from the Reachback Operations Room, the RBE will provide commanders, their staffs and deployed forces with timely, coordinated and authoritative advice on chemical, biological, radiological and nuclear issues, drawing upon remote expert sources of information, whenever and wherever required.

Following the procurement and installation

of the necessary equipment to perform CBRN Reachback function, it was also necessary to recruit and train RBE personnel. Significant progress has been accomplished pertaining to all aspects of training including the use and maintenance of the communications equipment and analytical software tools, as well as the development of Standard Operating Procedures (SOPs) and Standard Operating Instructions (SOI). These processes and procedures are flexible and allow for the rapid integration of new ideas to ensure continual improvement. In collaboration with the secondary network partners, on a monthly basis the RBE conducts CBRN scenario-driven exercises to continually test and refine the SOPs and SOIs. In preparation to achieve FOC, the RBE participated in Exercise Trident Juncture 2014, NATO Crisis Management Exercise 2015, Exercise Trident Jjaguar 2015 and will complete the NATO certification and validation process during Exercise Trident Juncture 2015.

The official ceremony on November 12th was a small step in the larger process of achieving FOC to meet the requirements of the Alliance. The complexity and uncertainty of the world's situation requires flexible and adaptive solutions and the CBRN RBE capability is prepared to meet those demands.

*Author: LTC Libor Svec (CZE A)*



# Outcomes of the Modelling and Simulation Group (MSG-106)

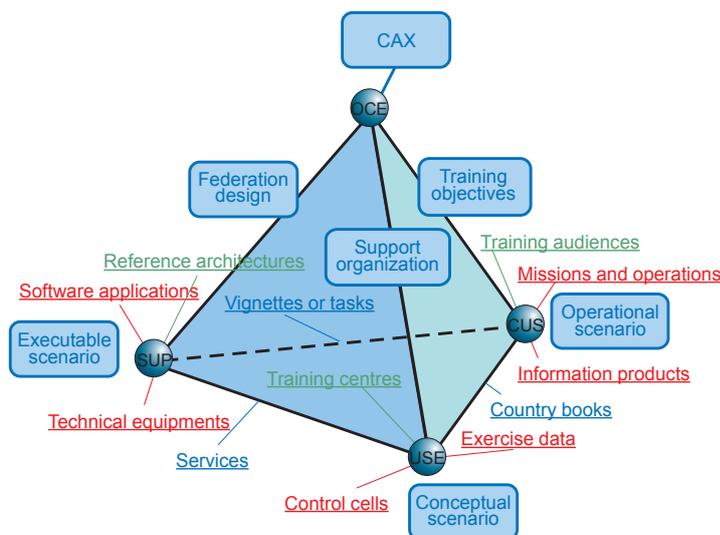
## Historical background

NATO and nations have to be prepared for challenges in new changing world and new task must be taken into consideration in training and exercises as well: current and future operations are multinational, the tasks are becoming more complex and need detailed preparation and rapid adaptation to changing circumstances in theatre, while at the same time opportunities for (live) training are reduced due to available resources and limited time span between political decision making and deployment.

Headquarter of Supreme Allied Command for Transformation initiated the NATO Education and Training Network (NETN) project (later known as Snow Leopard program) in 2007, to establish a persistent, joint NETN capability at the strategic, operational, and tactical levels with the use of national capabilities. Due to the financial and resources limitations there was decided later on to utilize existing NATO and national M&S capabilities and create not only technical solution for federation different M&S software tools but prepare complex solution covering all education, training and exercise demands. Previous working group MSG-068 developed initial technical solutions to enable distributed training and exercises. A final Stand Alone Experiment (SAE) showed the technical feasibility of a network of distributed simulations and the initial technical capability was handed over to the MSG-106 for the maintenance of the architecture, standards and providing improvements.

## MSG-106 Structure and Tasks

MSG-106 (Enhanced CAX architecture, design and methodology) worked in three separate subgroups Operational (OPS), Governance (GOV) and Technical (TEK). Work outcomes of each subgroup are described in Allied Modelling and Simulation Publications (AMSP), documents which describe and define principles of Computer Assisted Exercises (CAX) in planning phase, preparation and also during CAX execution and will help customers in preparation this kind of training issue. Moreover characterize relationships and procedures among users, customers and technical supporter, describe the need and preconditions for successful execution of CAX.



Picture 1: MSG -106 operational Concept

During time all groups were closely cooperating together but with their specific deliverables are defined as follows:

**OPS:** The AMSP-05 CAX Handbook which is main deliverables of OPS complements the Collective Training and Exercise directives document (Bi-SC 75-3) which focuses on collective training and exercises. Provide guidelines for EXCON and SIMCON (exercise control and simulation control) in performing CAX.

**TEK:** The AMSP-04 Federation Architecture and Federation of Object Modules (FOM) Design (FAFD) which describes the CAX specific interoperability architecture and data models. Update the NMSG-068 reference federation architecture and FOM design document to improve and extend it based on tested technical solutions.

**GOV:** The AMSP-03 M&S standard profile for NATO and Multinational Computer Assisted eXercises with Distributed Simulation. Support the NMSG-106 products for recommendations for the governance and maintenance of products, standardization, dissemination, quality assurance, risk management and coordination and collaboration with external bodies.

## Joint CBRN Defence COE Contribution

The JCBRN Defence COE was involved in the work of MSG-106 from early beginning in TEK subgroup. The cornerstone of the work was done in development of CBRN Federation Object Model (FOM) based on experience coming from Battle Command and CBR Sim Suite softwares' implementation and their interoperability

development. Great achievement in this scope has been done afterwards in cooperation between the JCBRN Defence COE and the NATO M&S COE. To support this cooperation, a specific Technical Arrangement was signed by both COEs' Director in Vyskov on 10 April 2014. Both COEs together are now able to run scenario enhanced by the CBR modeling. This capability was even improved with the use of Virtual Private Network (VPN) technology enabling to run the scenario from their home locations (Vyskov, CZE and Rome, ITA).

Initial working CBRN FOM "tiger team" grows in "task group" influencing the work of the other subgroups and in that time the COE started contributing also into the OPS subgroup. The need for testing of newly developed standards is obvious. For that purpose, and for the purpose of final product demonstration, it was required to find or develop an appropriate scenario. "Shipwreck Coast" was proposed and chosen at the MSG-106 plenary session as a good start point. The essential part of its enabling MSG-106's experimentation and demonstration phases was developed by the JCBRN Defence COE. The main JCBRN Defence COE area of responsibility focused on operational issues such as a preparation of real and realistic CBRN inputs into the existing country-books, the creation of complete datasets of nuclear power plants and TIC/TIM sites (including chemicals/materials and storage capacities) in areas of potential CAX execution, the preparation of feasible CBRN scenario and of geographical information. All those inputs were delivered also in Google Earth (KML) files enabling all partners to visualize the scenario including artificial country borders. The set-up of force structure was another portion of M&S Section workload.

All of these contributions speeded up the process of terrain generation, which is specific for every M&S tools, in the very late preparation phase of the demonstration.

These CBRN scenarios provided reliable demonstration of live federation of different M&S tools working together from different parts of world connected via Internet (Virtual Private Network – VPN).

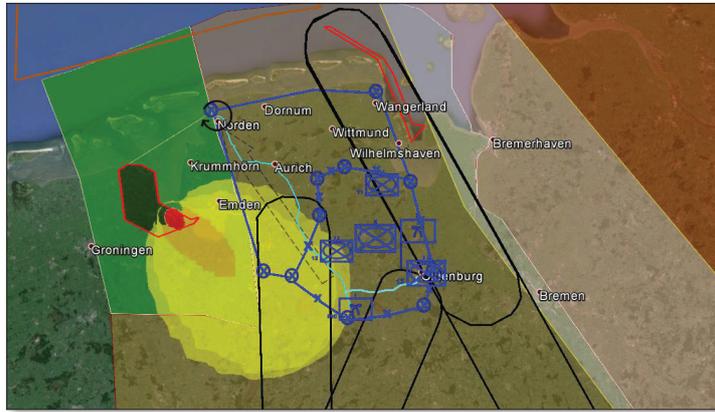
## Deliverables and Demonstration

The final products of all subgroups were received by the NATO M&S community which recommends all three documents

become an Allied Modelling and Simulation Publication (AMSP). MSG-106 more closely linking reference architecture and relevant standards to the NATO operational support requirements. The three documents AMSP-03, AMSP-04 and AMSP-05 should be considered in close relationship.

A demonstration during I/ITSEC 2014 (Orlando, USA) in December 2014 elicited strong interest from M&S subject matter experts of numerous nations. You can read more about the demonstration itself here: <http://www.cso.nato.int/page.asp?ID=2862>. The MSG-106 recommended some additional technical development and noted the lack of an established long term process for the maintenance. The continuance of the work and members are now split in two follow-on M&S groups. MSG-134 (Development of a High Level Architecture Integration, Verification and Compliance Test Tool) and MSG-136 (Modelling and Simulation as a Service).

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Picture 2: Main CBRN incident scenario



Picture 3: Connection during Demonstration

# SPS Programme Support for the Consequence Management Course

The Science for Peace and Security (SPS) Programme as a part of Civilian structure of NATO Organization is a policy tool that enhances cooperation and dialogue with all partners, based on scientific research, innovation, and knowledge exchange. The SPS Programme promotes civil, security-related practical cooperation, and focuses on a growing range of contemporary security challenges, including terrorism, defence against chemical, biological, radiological, and nuclear (CBRN) agents, cyber defence, energy security and environmental concerns, as well as human and social aspects of security. The SPS Programme supports collaboration through three established grand mechanisms: multi-year research projects, workshops and Advanced Training Courses (ATC). In 2014, the Joint CBRN Defence Centre of Excellence (JCBRN Def COE) applied and consequently was awarded funding for an ACT on "Consequence management after a Chemical, Biological, Radiological and Nuclear (CBRN) Incident" presented in partnership with the Ministry of Defence of

the Republic of Moldova. The course took place at Allvet Hotel, Vyškov, from 10th to 14th November 2014. Financial resources provided by SPS Programme have to be spent in accordance with strict "NATO ATC Condition of Award". It is intended to cover organization of the ATC, travel and living expenses of the ATC speakers and of Trainees from Partner countries. The grant is not eligible to fund participation from NATO countries as well as for trainees employed by industrial or commercial companies. Payment of the award is made in two instalments before, and one after the ATC, after all conditions for the instalment have been accomplished and required documents have been delivered to SPS Programme Management. The whole expenditure procedure is crowned by a Financial Report that has to be compiled within 120 days of the end of the ATC. NATO retains the right to carry out detailed audit on the ATC for three years after the ATC finished. The proof the grant was used in accordance

with the SPS Programme policy and provided a valuable training opportunity was evident through the student evaluations of the course organization, course content, and effectiveness of the guest speakers which highlighted the course as very useful with great value for their current job and their career development.

Author: MAJ Petr VALENTA (CZE-A)

# JCBRN Defence COE ODE role for TRJE 15

At the 2012 Chicago Summit, Allied leaders set the goal of 'NATO Forces 2020'. This is designed to be a coherent set of deployable, interoperable and sustainable forces equipped, trained, exercised and commanded so as to be able to meet NATO's level of ambition and able to operate together and with partners in any environment. The Connected Forces Initiative (CFI) is essential to ensure that the Alliance remains well prepared to undertake the full range of its missions, as well as to address future challenges wherever they may arise. The implementation of CFI is one of the key means to deliver NATO Forces 2020.

The flagship event for CFI is the Alliance's post International Security Assistance Force (ISAF) high visibility exercise Trident Juncture 2015 (TRJE15) that will showcase NATO on the world stage. The Exercise is planned from 28 September to 06 November in multiple locations across the Alliance including Italy, Portugal and Spain. Over 25,000 troops are expected to participate.

The purpose of TRJE15 is to train and test the NATO Response Force, a high readiness and technologically advanced force comprising of land, air, maritime and special forces units capable of being deployed quickly on operations wherever needed.

TRJE 15 Part 1 is serving as the joint certification venue for the NATO Response Force 2016 (NRF 16) and the Full Operational Capability (FOC) event for Joint Force Command Brunssum (JFCBS). TRJE 15 Part 2 will focus on tactical level training for allocated forces in a LIVEX setting and may also serve as the Component certification venue for NRF 16, if required. The exercise represents a significant investment for NATO; not only the exercise itself, but the lead-in activities present an excellent opportunity to maximize training value for a wide range of participants involved in planning and execution beyond the scope of NRF 2016 and JFCBS FOC certification.

One of the TRJE15 exercise objectives is to train and exercise JFCBS and its subordinate NRF Component Commands to command and control a multinational deployed joint force in planning and executing a Non-Article 5 Crisis Response Operation, within a complex military, civilian, and asymmetrical environment including Cyber, Ballistic Missile, CBRN, and Weapons of Mass Destruction (WMD) threats.

To face CBRN and Weapons of Mass

Destruction (WMD) threats the Combined Joint CBRN Defence Task Force (CJ-CBRN D-TF) is going to be deployed in full strength. The CBRN-Joint Assessment Team (CBRN-JAT) will participate as a strategic asset in the Joint Task Force Headquarters and CBRN Battalion will deploy as a joint operational asset collocated with the Land Component Command during both Parts of the exercise.

The JCBRN Defence COE exceeds its role during the TRJE15 Exercise. JCBRN Defence COE usually supported SHAPE J7 Evaluation branch and JWC Training and Scenario Development Teams providing CBRN Subject Matter Experts (SME). This year the situation will be different.

JFCBS as Officer Conducting the Exercise (OCE) asked ACT as the Officer Scheduling the Exercise (OSE), whether it is possible to identify for this time a separate entity which will take care of for certain "special" areas like CBRN, CIMIC or PsyOps. The reason for that is simple; this exercise exceeds every threshold with regards to participating forces for many years. The JCBRN Defence COE accepted request from ACT and become the Officer Directing the Exercise (ODE) for CBRN area. This decision comes with a number of responsibilities. The JCBRN Defence COE as ODE supports the OCE for the detailed planning and overall execution of the exercise by creating the conditions which allow the achievement of the exercise aim and objectives.

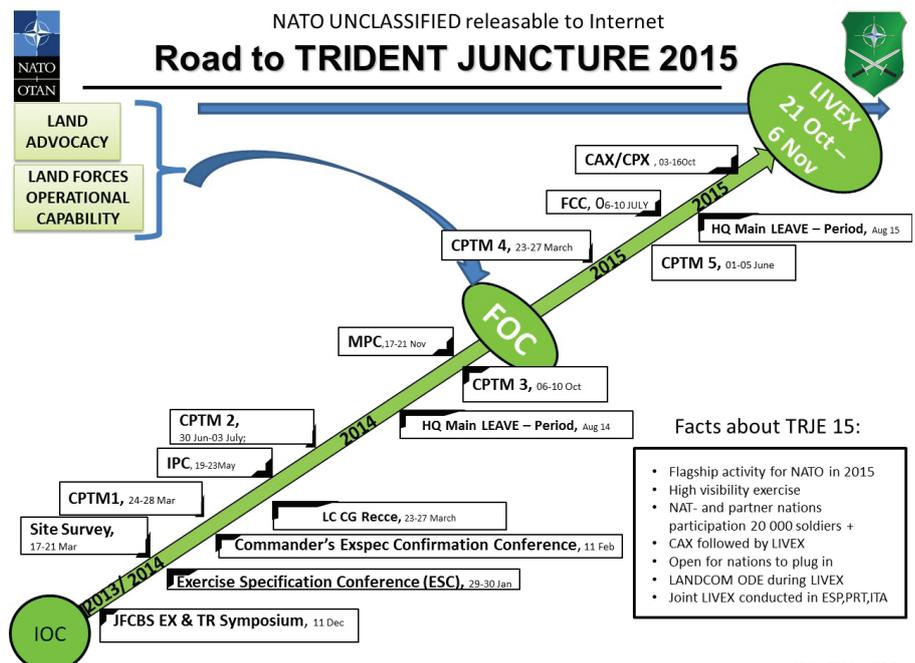
The JCBRN Defence COE role as CBRN ODE for TRJE15 already started in 2014 by active participation at the planning conferences. At the beginning of 2015 Training, Exercise and Education Department (TEED) supported TRJE15 Academics, the main study seminar, where CBRN vignette was discussed in the broad commander's community. January also became the month than TRJE15 exercise control (EXCON) started to assemble. As a part of the EXCON, JCBRN Defence COE takes a directing/coordinating role to develop, in close coordination with the ODEs (LANDCOM, AIRCOM, MARCOM, NSHQ (for Special Ops), complex scenario play and training program for participating CBRN forces. This demanding task would be conducted mainly during MEL/MIL Development WS in April and MEL/MIL Scripting at June at Joint Warfare Center (JWC) Stavanger.

TRJE15 will be unique for many reasons, one of them is the fact that opposing force would be played by another NATO HQ – Naval Striking and Support Forces NATO (STRIKFORNATO). Because of ODE role, JCBRN Defence COE is going to send CBRN SME to this element as well.

Our ODE responsibilities are expected to culminate during TRJE15 – execution phase. TEED will be supporting SHAPE evaluation activities and JWC training teams, coordinating CBRN response cells and providing expertise in support of the opposing force.

Accepting the ODE role by JCBRN Defence COE is highly appreciated by JFCBS as the OCE for this exercise and hopefully it would be beneficial for all CBRN soldiers participating on that exercise.

Authors: MAJ Kurej (CZE),  
MAJ Rybák (CZE)



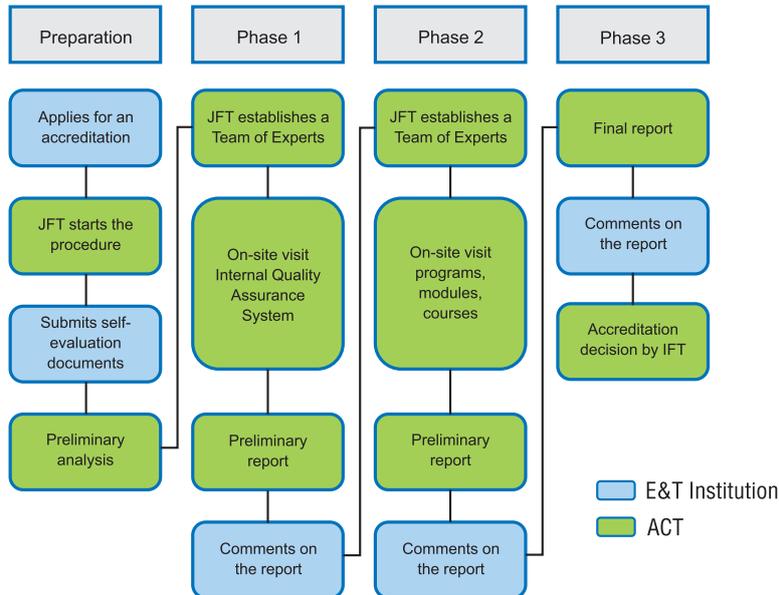
# Quality Assurance Accreditation Experience

Allied Command Transformation (ACT) Joint Force Trainer, Vice Admiral Javier GONZALES-HUIX, ESP-N, announced on 4 December 2014 that the Joint CBRN Defence COE received an Unconditional Quality Assurance (QA) Accreditation for the period 08 December 2014 – 08 December 2020. This is what we proudly announced on our web page at the end of 2014. But the way to this achievement was

The COE requested QA Evaluation in October 2013. The process sped during the summer 2014. In July we received the ACT Joint Force Trainer's announcement for a QA Accreditation Process with the following steps: 1. QA preliminary survey process, 2. On-site Evaluation, 3. Analysis and preparation of the Evaluation Report and, finally, 4. Presentation of the results.

November 2014. The aim was to determine if COE met the established standards and criteria in education and training. During the visit designated COE members discussed with the QA TOE various topics relating to QA. Among them were:

- ▶ the implementation, monitoring and review of internal QA policy and directives;
- ▶ scheduling, designing, developing, conducting, monitoring, reviewing and improving of curriculum;
- ▶ implementation, monitoring and review of student assessment, learning resources and student support processes and procedures;
- ▶ designing, developing, implementation, monitoring and reviewing of staff orientation and staff development, internal and external communication and information and management systems and public information.



neither short nor easy. Let's have a look at the details...

Referring to Bi-SC 75-7 Education and Individual Training Directive the purpose of QA is "to establish processes and procedures ensuring the highest possible degree of quality for NATO's Education and Training (E&T) while at the same time providing autonomy and flexibility to the institutions involved, to the programmes and modules/courses. It furthermore provides the basis for the coordination between E&T stakeholders and for continuous improvement of transparent E&T quality. The objective of QA is to implement quality improvements of the education and training content in order to satisfy the needs of the Operational Commanders or other customers, to bolster partners and to support nations in their national approach to lifelong learning. To achieve this, certain principles must be established regarding the different education and training stakeholders and events:

- ▶ Relevant to the needs of NATO and meeting NATO E&T requirements.
- ▶ Transparent in the learning/training processes and procedures.
- ▶ Accountable towards stakeholders and learners/participants.
- ▶ Responsible for implementing best practices."

*Scheme 1: Procedure for QA System Accreditation (Annex I, Bi-SC 75-7 Education and Individual Training Directive)*

## 1. QA preliminary survey process.

The COE already started in 2013 the systematic work on meeting the International QA Minimum Criteria as part of preparation for QA Accreditation. This affected variety of areas, procedures, steps, daily routine etc. in the whole COE but mainly in Training, Exercises and Education Department (TEED). To name just a few items: Quality Policy and Strategy, Curriculum Design, Instructional Processes, Certifications and Curriculum Evaluation, Evaluation of students and speakers, Evaluation of learning resources, Communication.

In simple words this meant we had to focus on planning, preparation, execution and evaluation of the training and education process by answering what, who, where, when, why and then adjusting it to the required minimum criteria. It was quite a challenge for a small TEED team!

In order to prepare for the On-site evaluation a QA Preliminary Survey Report was compiled and sent to ACT in September 2014.

## 2. On-site evaluation.

A 5-member QA Team of Experts (TOE) visited the JCBRND COE on 3 and 4

## 3. Analysis and preparation of the evaluation report.

The QA TOE took its time in November 2014 to analyze the findings during the COE visit. We had to provide additional documents, adjust some procedures and clarify / answer questions. Again, it was additional burden during the very busy time period.

## 4. Presentation of the results.

In December the COE received a surprisingly nice Christmas gift – NATO's highest grade in its assessment by the ACT QA TOE. The COE met or exceeded the minimum criteria in all assessment areas and received Unconditional Quality Assurance Accreditation. The accreditation certificate stated that the JCBRN Defence COE was found to have

- ▶ sound internal procedures for the assurance of quality;
- ▶ effectively applied procedures at each level to ensure the quality of education and training;
- ▶ effective and regular processes of reviewing the curriculum and implementing required changes, developments and enhancements;
- ▶ and accurate complete and reliable information about its curriculum«.

We are very proud of this achievement. It is a result of hard work during the last 12 months not only by TEED (Training, Exercises and Education Department) but by the entire COE team as well. It is a result that shows us we were heading in the right direction in the last years, during our course development phase. Now we are willing to continue, improve and enhance our individual training and education process until end of 2020, when the COE will have to renew the QA Accreditation.

Author: CPT Gorazd STERGAR (SVN-A)

# The JCBRND Defence COE participation in the Maritime-Land Weapons of Mass Destructions Intelligence, Surveillance, and Reconnaissance (WMD ISR) Experiment 2014

*"The duty of the man who investigates the writings of scientists, if learning the truth is his goal, is to make himself an enemy of all that he reads, and... attack it from every side. He should also suspect himself as he performs his critical examination of it, so that he may avoid falling into either prejudice or leniency."*—Alhazen

The WMD ISR Experiment is the continuation of the Tactical Network Testbed Maritime Interdiction Operation (TNT MIO) experimentation (2007- 2013) and had three parts (A, B and C) in 2014. The JCBRND COE participated in the part A and B, and this Experiment was the first activity of the brand new Multinational Experimental Support Section (MNESS), which is part of the Transformation Support Department, and it's role to support the NATO Capability Development process through Concept Development and Experimentation (CD&E).

The objective of the U.S. Naval Postgraduate School (NPS) Maritime-Land WMD - ISR Experiment 2014 was to experimentally evaluate feasibility/constraints for Maritime-Land WMD ISR Networking and Collaboration. Experiment Part A was to run in concert with Polish National Special Operations Forces (POLSOFF) exercise in Gdansk (Poland). The scenario included a mobile terrorist cell in possession of radio-nuclear (Rad/Nuc) material. The Discovery Experiment aim was designed to identify detection, tracking and post-engagement technical exploitation processes and requirements. Two experimental teams were observing/notionally participating in the POLSOFF exercise. A team from the NPS (augmented by Norwegian SOF personnel) and the ACT Operational Experimentation Branch team (OPEX team). NPS' Experiment was focused on the Intelligence, Surveillance and Reconnaissance (ISR) information support requirements, and the OPEX team did acquire insight into technical exploitation processes and top-level requirements by conducting interviews with NPS experts.

Part B of the Experiment (Souda Bay-Greece) was not linked to any national exercise, but the experimental teams carried out the same observing/notionally activities as during part A. The participants had the opportunity to observe the Centre for Maritime Research and Experimentation (CMRE) at the NATO

Maritime Interdiction Operational Training Centre (NMIOTC) regarding the use of helmet-mounted video cameras streaming real-time video off-board during routine boarding missions.

The JCBRND COE participation objectives were to train the JCBRND COE Reach-back Section (RBS) and at the site help the OPEX team to collect the observations related to the Sensitive Site Exploitation (SSE) activities in order to support the development of the WMD Disablement Functional Concept and Discovery Experiment, which will be the one of the key topic of the Capability Development in the CBRN Defense for 2020.

The RBS participation in the part A was provided called in operation mode (24/7), while they received requests for scientific support (mainly spectra analysis) and sent back responses during the Experiment. During the part B the RBS operated in routine mode able to work on the scientific response during the working hours.

The MNESS tasks fell into two parts during the Experiment, operating a Control Team in the JCBRND COE to support the lessons learned process and the coordination within the JCBRND COE and on the site support the ACT team to collect the necessary observations to develop the WMD Disablement Functional Concept and Discovery Experiment.

The WMD ISR Experiment was a good opportunity for the new MNESS to learn more about the NATO experiment process and to start the cooperation with the OPEX team. The MNESS as a new capability of the JCBRND COE will play an important role in the future to support NATO military transformation in the field of CBRN defense.

Authors: LTC Ferenc Menyhárt (HUN-A)  
Mr. Jiri Pail (CZE)



Fig 1: Sensitive Site Exploitation – forensic manner - activity during the part A.



Fig 2: Detection of the Rad/Nuc source during the part A



Fig 3: The Middle remote-controlled robot with R/N detector during the part B.

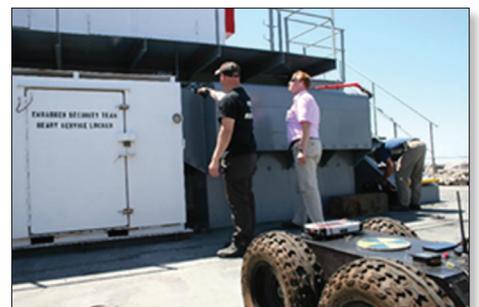


Fig 4: Detect Rad/Nuc materials being illegally transported in container and transmit data via robot into mesh network (part B).

# JCBRN Defence COE supports ACT's Futures Work.

(...)  
*Anticipate how our military forces could be employed in this uncertain future is the aim of the Framework for Future Alliance Operations that we are currently developing with your staffs. It is an ambitious endeavour, but indispensable to share the conclusions of your national studies so that we are able to define and prepare the capabilities that we will need together tomorrow. It is all the more important as we are about to start a new cycle of NDPP in 2015, for which our military advice should be clearly stated.*

(...)  
*I'm convinced that we need this shared framework to develop a relevant Defence Planning Process. It must place a premium on being agile enough to adapt, fostering innovation in operational planning and maintaining a clear margin of error in both sizing and structuring the force.*

(...)  
**Général d'armée aérienne  
 Jean- Paul Paloméros  
 Supreme Allied Commander  
 Transformation  
 keynote speech MC Conference  
 Vilnius, Lithuania  
 20 September 2014**

Maintaining future military readiness in a complex and constantly evolving security environment demands a long term planning with its horizon beyond 2030 focus. It requires anticipation of a different future and a shared perspective of the future security environment, its military implications and the resulting broad strategic operating requirements. There is a need for NATO to assess the future security environment and identify future requirements.



Copyright ACT Future Work Team - FIGURE 1

To meet this objective and support the NATO Long-Term Military Transformation, the Allied Command Transformation (ACT) has been running a collaborative effort, the Futures Work Project (Project) since October 2012 (Figure 1). This Project is consisting of two parts; the Strategic Foresight Analysis (SFA) and the Framework for Future Alliance Operations (FFAO) and is a part of the Supreme Allied

Commander Transformation's (SACT) process for anticipating and preparing for the ambiguous, complex and rapidly-changing future security environment. The results, recommendations and findings of both activities, SFA and FFAO, will inform NATO Defence Planning Process (NDPP) and other programs and policy work.

The first result of the Futures Work, the SFA Report was introduced in October 2013. The SFA Report collects trends, drivers and brief descriptions of Defence and Security Implications that could promote the NATO's interest. The goal was to develop a view of the future, not a prediction, but a sharing of perspectives to build a common understanding among the member nations of what the future potentially may look like and what this could mean to the Alliance out to 2030 and beyond (Figure 2).

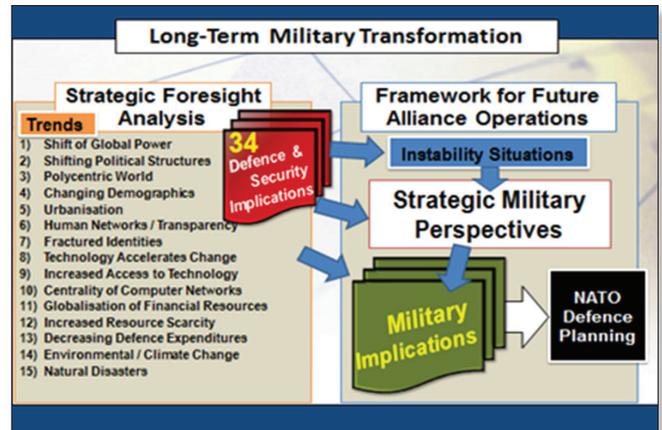
The SFA is important not only for the second part of the Futures Work, the Framework for Future Alliance Operations, but for all aspects of NATO's efforts. Those are ranging from individual Nation defence planning, via various NATO Headquarters programs, to other NATO efforts like the Connected Forces Initiative and Smart Defence, where NATO cannot collaborate effectively if does not share a common perspective of the future and how the Alliance should be expected to operate.

On the other words the SFA creates a collective departure point and shared reference for discussing future challenges and opportunities and serves as a foundation for the FFAO.

The SFA effort has not ceased with the release of the 2013 report. SFA is a living process that will be updated regularly in order to provide NATO, National leaders and defence planners with a perspective of the challenges facing the Alliance in the coming decades. It is assumed that both the SFA and FFAO will be produced in 4 year cycles that match up with the NDPPs 4 year term.

The second strand of the Futures Work Project, the development of FFAO started in 2013 and will be implemented in three phases (Figure 3). To maximize transparency and collaboration, Phases 1 and 2 were opened to Nations, Partners, Think Tanks, Industry, and Academia. To ensure that NDPP remains exclusively

NATO business, Phase 3 is NATO only and therefore it will be executed by ACT and Allied Command Operations (ACO) in close coordination and collaboration



Copyright ACT Future Work Team - FIGURE 2

with International Staff (IS), International Military Staff (IMS), COEs and Nations (Community of Interest). The SACT guidance on the FFAO development ensures three phases development process of high-quality products signed by both Strategic Commanders (Bi-SC) and endorsed by the Military Committee (MC). Further elaborating on the SACT's statement on the second strand (see the foreword), the FFAO will assess the impact of the trends, defence and security implications expressed in the SFA through an investigation across the Alliance Core Tasks, the Capability Hierarchy Framework (CHF) and cross-domain functions. FFAO, in support of the current Strategic Concept, will develop the future trends to identify Strategic Military Perspectives (SMP) and Military Implications (MIs). From the practical point of view the FFAO aims to support NDPP Step 2 "Minimum Capabilities Requirement" by identifying the MIs and supporting NDPP Step 5 "Capability Review".

The first traces of the JCBRN Defence Centre of Excellence (JCBRN Def COE) involvement in the Futures Work Project are dated to the year 2012, when the former deputy director COL Janosz ZELENAK (HUN) contributed to the drafting of the SFA Report 2013. Based on the positive feedback from the ACT, in February 2013 a small team of the JCBRN Def COE experts was formed. Following an invitation to take part in the FFAO development efforts, Col Rainer SCHULTE (DEU) and LtC Aleš MYNAŘÍK (CZE) have been participating actively in the series of FFAO workshops and videoconferences. This team, in case of necessity occasionally reinforced with other JCBRN Def COE subject matter experts, contributed to previous phases of the FFAO Project, the Strategic Military Perspectives' development and definition

of Instability Situations<sup>2</sup> (example Figure 4), especially in the area of possible WMD/E use and also information management. While SMPs represent high-level, broad guidance, the next step of the Framework for Future Alliance Operations, Military Implications<sup>3</sup> will contain concrete, military-specific deductions that may drive change in how the military prepares for and executes operations. The JCBRN Def COE team had proposed number of drafts of Military Implications, which were then discussed during the latest FFAO workshop held in Brussels, Belgium, 12-13 November 2014. Many of them were analysed and positively received. They will

be taken into account and will serve as a valuable inputs and data in the ongoing Military Implication drafting process.

The JCBRN Def COE stands ready to express its dedication of the JCBRN Def COE Subject Matter Experts to further participate in and contribute to the next steps of the Futures Work Project, such as SFA or FFAO updates which will be conducted periodically every four years.

Author: LTC Aleš Mynařík (CZE-A)

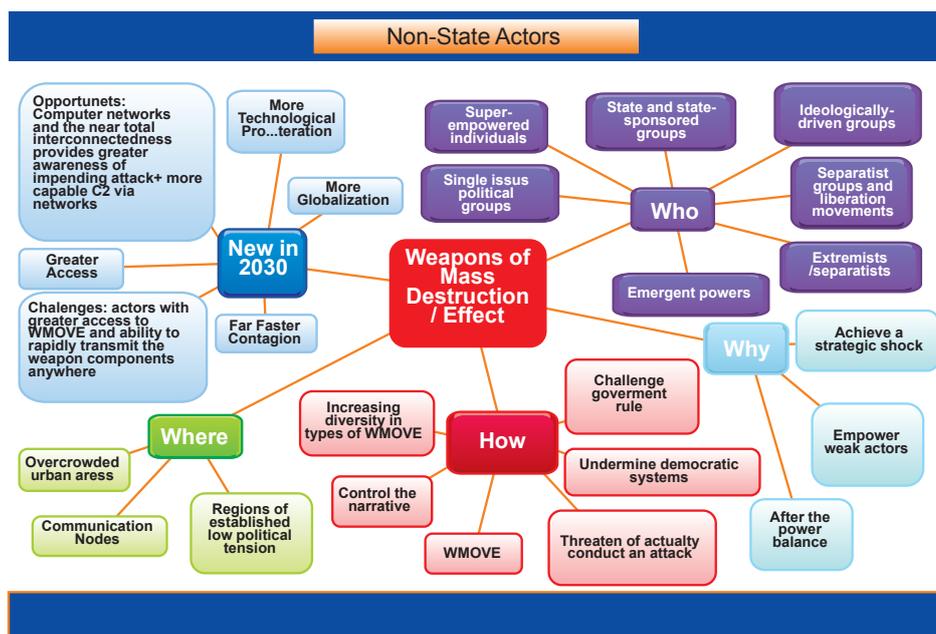
<sup>1</sup>Strategic Military Perspectives (SMPs): Bi-SC military guiding principles that inform long-term NATO defence planning and other processes, such as concept development, education, training and exercises. Strategic Military Perspectives provide guidance from the Strategic Commanders on the abilities and characteristics that NATO could build upon and can inform the Alliance's transformation efforts.

<sup>2</sup>Instability Situations: generic descriptions of future events, crises or conflicts that may lead to NATO military involvement.

<sup>3</sup>Military Implications: military-specific deductions, derived from the SFA, IS and SMPs, that may drive change in how the military prepares for and executes operations to accomplish NATO's core tasks.

Three FFAO Phases			
	Phase 1	Phase 2	Phase 3
<b>Main Actions</b>	Trend Analysis	Core Task Analysis of Instability Situations	Domain Analysis of Strategic Military Perspectives
<b>Supporting Activity</b>	<ul style="list-style-type: none"> <li>Instability Situation Workshop (9-10 Apr 14)</li> <li>Bi-SC Approval</li> <li>MC Engagement</li> </ul>	<ul style="list-style-type: none"> <li>SMP Workshop (11-12 Jun 14)</li> <li>National Review (4-22 Aug)</li> <li>Bi-SC Approval</li> <li>MC Approval</li> </ul>	<ul style="list-style-type: none"> <li>MI Workshop (12-13 Nov 14)</li> <li>Rewiew Period</li> <li>Bi-SC Approval</li> <li>MC Engagement (Summer 2015)</li> </ul>
<b>Outcomes</b>	Instability Situations	Strategic Military Perspectives	Military Implications
		Align with the development of Political Guidance	

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# JCBRN Defence COE / Defence Against Terrorism Programme of Work Project

NATO's Defence Against Terrorism Programme of Work (DAT PoW) was endorsed at the Istanbul Summit in 2005, in order to bridge the gap between longer-term military and urgent operational requirements needed to better defend against terrorism or terrorist methods. Its initial technological focus was broadened to encompass doctrine, trainings, exercises, trials, etc. and offer a more comprehensive support to capability development. Reflecting the operational engagement of the Alliance, the programme addresses NATO critical shortfalls, emerging from the theatres of operation, but also focuses on maintaining troop readiness and deployability, mirroring the Alliance's current transition.

In June 2013 the JCBRN Defence Centre of Excellence (COE) submitted a proposal and was approved to receive funding from the DAT PoW in order to develop and implement what was at that time referred to as the NATO Reachback and Fusion Element Implementation Project. This project was designed to create and establish a CBRN Reachback capability within the JCBRN Defence COE, in order to provide CBRN reachback support to the entire Alliance as well as the Sponsoring Nations of the COE. This project met a critical priority area for the Alliance, in allowing connectivity between the front line and a network of experts, of great relevance for the current security environment. It is also an excellent illustration of how expertise within a COE can be used to the benefit of the entire Alliance.

Focusing on the priorities of establishing a secure, collaborative and functional

work space within the JCBRN Defence COE, the project was divided into five major portions utilizing funding from the DAT PoW, as well as funding from the COE multi-national budget and the Czech Republic as the Host Nation:

- Physical Security
- Unclassified Automation and Audio Visual Systems
- Classified Automation Systems
- Office Equipment and Furniture
- Infrastructure Improvements

The main focus areas of the project were on the audio visual systems, automation systems, and infrastructure improvements designed to significantly enhance interoperability and establish a collaborative environment. The audio visual system not only allows all members of the CBRN Reachback section to internally collaborate and share information, they also have the ability to securely connect with external agencies in the same manner. The automation improvements upgraded our unclassified and NATO secure systems and also included a Battlefield Intelligence Collection and Exploitation System (BICES) significantly increasing our collaboration with NATO intelligence organizations. All of these systems were integrated into the overall JCBRN Defence COE infrastructure to ensure collaboration with other COE departments and sections such as the Modelling and Simulation section.

We are very grateful to the assistance and guidance provided by the superb team at the DAT PoW office. Their assistance

was invaluable as we progressed through with this project. The end result is a state of the art operations room providing the necessary tools and collaborative environments to enable the JCBRN Defence COE and the CBRN Reachback Section to provide the best CBRN advice to NATO and our Sponsoring Nations. We recently completed an opening ceremony of the Reachback Operations room on 12 November 2014.

The JCBRN Defence COE is one of only a few COEs providing operational support to NATO and all aspects of this project were coordinated with Headquarters, Allied Command Transformation (HQ ACT) in order to preserve the accreditation of the JCBRN Defence COE in accordance with the Military Committee Concept for Centres of Excellence. In order to ensure we maintain our accreditation, while remaining flexible and responsive to the requirements of Headquarters, Allied Command Operations (HQ ACO), the JCBRN Defence COE is developing a Technical Arrangement between our Sponsoring Nations, HQ ACT and HQ ACO. The NATO CBRN Reachback Element Concept of Operations is also in the process of being staffed within the International Military Staff. The CBRN Reachback capability within the JCBRN Defence COE expects to reach Full Operational Capability by the end of 2015.

*Author: COL D. David Deadrich (USA-A)*

## European Union Military Staff and JCBRN Defence COE intent to establish mutual cooperation

European Union Military Staff and JCBRN Defence COE intent to establish mutual cooperation

On 22 April 2015 Chairman of the Steering Committee/JCBRN Defence COE Director COL Jiří Gajdoš and the European Union Military Staff (EUMS) Concept and Capabilities (CONCAP) Director Brigadier General Hainz Krieb will sign the Letter of Intent between the Director General of the EUMS and the Chairman of the Steering Committee/JCBRN Defence COE Director.

The signing of the Letter of Intent (LOI) will be the first step towards a new way of

cooperation between these organizations. The basic purpose of the LOI is to express joint and mutual interest to initiate the grounds for potential cooperation.

The LOI among others identify non-exclusive areas of mutual interest where both participants to this LOI may benefit from sharing the experience and expertise as well as from the reciprocal interaction. The spheres of cooperation outlined by the LOI are but not limited to the conceptual development, training and education opportunities and facilities exchange agreement and support to EU-led military engagements.

As already mentioned the LOI opens door for deeper mutual cooperation between the EUMS and the JCBRN Defence COE. Nevertheless, it has to be highlighted that such cooperation should be based exclusively on a separate and independent cooperative or implementation agreement(s) which will establish a solid legal ground for a specific and deeper cooperation.

*Author: Mr. Zdenek HYBL (CZE)*

# CBRN Courses Availability 2015

Date	Days	Course Name	Seats	Security level
20 – 24 Apr	5	Introduction to the CBRN Training Curriculum	18	NU
14 – 15 May	2	Analysis Super User	12	NU
25 – 28 May	4	I – RAPTER Basic	30	NU
25 – 28 May	4	I – MED	40	NU
7 – 11 Sep	5	CBRN Units Evaluators	18	NR
21 – 25 Sep	5	Live Agent Training / Pilot	18	NU
5 – 8 Oct	4	International Radiological Consequence Management	18	NU
19 – 23 Oct	5	W&R Specialists	18	NU/NATO, PfP
2 – 5 Nov	4	I – RAPTER Advance	30	NU
23 – 27 Nov	5	Crisis Management after CBRN Incident	40	NU

## Introduction to the CBRN Training Curriculum

The course is expected to train already existing CBRN trainers to improve their knowledge in field of CBRN Defence. Participants should have concrete experience in fire and rescue, police or paramedic services, or similar activities (civilian and military) and with training activities in this field. It is expected that attendees will have experience in delivering CBRN training to first responders.

## Analysis Super User

Only students previously qualified from a CBRN-Analysis Operator Course and have extended practice in use of CBRN-Analysis should be able to attend this course and every year to be updated on the latest version and the current CAX training programs.

## I – RAPTER Basic, International Radiological Assistance Program Training for Emergency Response

This course is designed for emergency response personnel with minimal training in radiological emergency response or experienced professionals seeking refreshed training.

## I – MED, International Medical Management of Radiation Injuries

The course is intended for management, doctors, nurses, nurse practitioners, physician assistants and emergency medical teams who may be called upon to provide emergency medical care following a radiological or nuclear incident. Response personnel such as paramedics will also find it beneficial. The course is applicable to hospital and pre-hospital settings and stresses the integration of professional medical care, radiation protection and health physics.

## CBRN Units Evaluators

The course will be conducted in the form of the briefings, discussions, syndicate works and practical exercises only for NATO Nations. A sound knowledge of the NATO CREVAL is requested.

## Live Agent Training / Pilot

The course is designed to provide students with knowledge, skills and abilities to work confidently in protective clothing in a toxic environment containing chemical agents, toxic industrial chemicals, and radiological or nuclear materials. Through the training, students will gain practical experience in the use of personal protective equipment, will understand and be able to apply safe work practices and will have an appreciation of the equipment and methods for detection and decontamination. The course will help develop security standards matching international requirements and improve interoperability and effectiveness of international cooperation in this area. Finally, NATO countries will benefit from better compatibility of their and Partner countries security systems and more effective international cooperation in the field of counter-terrorist measures. Through field exercises, experts will provide trainees with practical knowledge on chemical warfare agents, their detection as well as their protection and decontamination. Students are supposed to have a common level of knowledge to work safely and effectively in a toxic environment.

## International Radiological Consequence Management

Through discussion and practical hands-on applications, students will gain knowledge and experience with prioritizing response need, monitoring and sampling strategies and data assessment methodology to assist in determining.

## W&R Specialists (for NATO/PfP Nations)

The attendees will be fully qualified in manual operational procedures in the NATO CBRN Warning and Reporting System.

## I – RAPTER Advance

This course is designed for emergency response personnel that have taken the basic I-RAPTER course or have an intermediate to advanced level of experience in radiological emergency response.

## Crisis Management after CBRN Incident

Through discussion and practical hands-on applications, students will gain knowledge and experience of Crisis management after CBRN attack in relation to current national and international security concerns. Course is developed for key elements of consequence management structures including the police, fire fighters, health services, hospitals, military, civil defense (if applicable), emergency management authorities, public information, specialist teams such as counter terrorist units or investigation.

For detailed courses information visit <http://www.jcbrncoe.cz/> and learn “How to Enrol into a Course“

The image displays a composite of three screenshots from the JCBRN Defence COE website. The top screenshot shows the main website header with the logo 'JCBRN Defence COE' and 'Vyskov, Czech Republic'. A red circle highlights the 'T&E PORTAL' link in the navigation bar. The middle screenshot shows the 'Welcome to the JCBRN Defence COE - Training and Education Portal (JCBRN Defence COE-TaEP)' page. A red arrow points from the 'T&E PORTAL' link to this page. A red box highlights the 'Course Registration Forms 2014, 2015' link in the navigation menu. The bottom screenshot shows a 'REGISTRATION FORM (2015)' with sections for '1. Instructions' and '2. Basic information'. A red arrow points from the highlighted link in the middle screenshot to this form.

**1. Instructions**  
ALL REQUESTED INFORMATION IS MANDATORY!  
Submit this registration form in PDF format NLT 4 weeks before the course starts to the Project Manager via E-mail [courses@jcbrncoe.cz](mailto:courses@jcbrncoe.cz) or FAX 00 420 973 452 800  
ALL INFORMATION WILL BE USED FOR JCBRN COE INTERNAL PURPOSES ONLY!

**2. Basic information**

a. Family Name:	<input type="text"/>	Name of the Course:	<input type="text"/>
c. Gender:	<input type="text"/>	b. Given Name:	<input type="text"/>
e. NATO Rank/Grade:	<input type="text"/>	d. Date of Birth:	<input type="text"/>
		f. Nationality:	<input type="text"/>

# Senior Enlisted Advisor of the JCBRN Defence COE thoughts

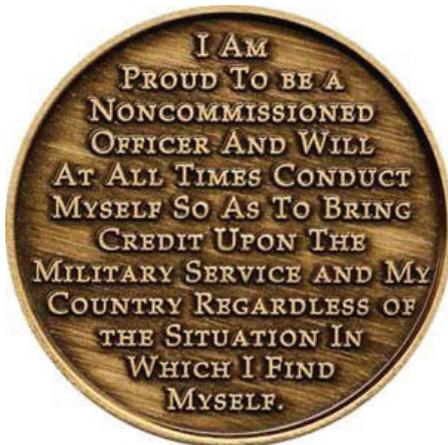


The role of the Senior Enlisted Advisor was first established at the JCBRN Defence COE in October 2013. The primary role of the Senior Enlisted Advisor is to advise the COE Director on all aspects and issues involving members of the NCO Corps within the COE. The Senior Enlisted Advisor is also a valuable asset to the JCBRN Department Directors, Senior National Representatives, and JCBRN Defence COE managers, to assist and resolve NCO-related issues as well as provide advice and guidance regarding training opportunities to increase NCO professionalism and expertise. As the Senior Non-commissioned Officer of the Czech Republic members, the Senior Enlisted Advisor also performs management duties pertaining to the NCOs of the Czech Republic in terms of expertise, moral and physical readiness and competences. He is to supervise command, professional and methodical training of the NCO Corps to their development, preparedness, organization,

discipline, moral status, appearance and military manner, promotions and rewards at the COE.

The first JCBRN Defence COE Senior Enlisted Advisor is Chief Warrant Officer (CWO) Ivan HLADÍK. CWO HLADÍK graduated from the United States Sergeant Major Academy in Fort Bliss, TX, USA in 2013 and in October of the same year he assumed the position as a Senior Enlisted Advisor (Commanding Sergeant Major). He has been deployed to foreign military combat operations three times, served a tour with NATO Supreme Headquarters Allied Power in Europe (SHAPE) in Belgium, served in a wide variety of NCO leadership positions and was selected to attend many qualification courses necessary to his duty performance and his professional career sequence.

*Author: CWO Ivan Hladík (CZE)*



# Personality of the JCBRN Defence COE

Each year, two members of the JCBRN Defence COE are selected as the Personality of the Year. All JCBRN Defence COE members are eligible to be named as the Personality of the Year. One person will be elected and chosen by the entire JCBRN Defence COE members and the second person will be chosen by the JCBRN Defence COE Director. Both personalities of the year are awarded a special gift.



COL D. David DEADRICH, Chief of Staff, Directorate, was selected by the JCBRN Defence COE members as the Personality of the Year for his support and performance in support of the mission of the JCBRN Defence COE.

COL D. David DEADRICH has been assigned as the Chief of Staff of the JCBRN Defence COE since September 2013. He has been deployed in foreign military combat operations two times. His duty actions and performance of all missions provided outstanding support to all missions and activities of the JCBRN Defence COE.



WO1 Radek MOZNY, Quartermaster, Support Department, was selected by the JCBRN Defence COE Director as the Personality of the Year for his outstanding duty performance and dedication to the JCBRN Defence COE.

WO1 Radek MOZNÝ has been assigned as a Quartermaster to the JCBRN Defence COE since 1st of October 2012. He has been deployed in foreign military combat operations four times. His duty performance utilized his previous military experience, and he performed all missions in an outstanding fashion in support of the JCBRN Defence COE. He is an "Invisible Man" at the JCBRN Defence COE for his flexible spectrum of duty and responsibilities in order to support all JCBRN Defence COE members with their day to day necessities.

# Newsletter

Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence

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