



# Newsletter <sup>2/2015</sup>

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

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# NEWS



*Fellow Comrades and Colleagues, dear Readers,*

*on 1 July 2015, I assumed responsibilities as the new Deputy Director, and I feel honoured to have the privilege of welcoming you to edition 2015/02 of the Joint CBRN Defence Centre of Excellence Newsletter.*

*A lot of things have changed since the last edition – key personnel have rotated, vacancies have been mitigated, and a lot of additional tasks have been presented to our Centre of Excellence. I view these issues as opportunities to further develop our Centre's professionalism in accepting new challenges, analyzing the inherent tasks in them, identifying our organizational role in coping with these tasks, executing them, and presenting professional results.*

*Speaking of professionalism: Professional products – this is what our CBRN Reachback Capability is going to provide to our customers on a daily basis from now on. The newly established operations center provides mission-oriented infrastructure, including comfortable work space, access to databases and information sources from NATO Unclassified up to NATO Secret level with connectivity across a global secondary network, and sophisticated functional systems. Most important, if understated, our CBRN Reachback Element is staffed with well trained and experienced personnel, highly motivated and – after the introduction of a duty roster – available 24/7. The steadily growing number of Requests for Information (RFI) and Requests for Support (RFS) is proof that the NATO Community of Interest, i.e. our customers, has already recognized the quality of our delivered products.*

*We are also receiving increased recognition in our yearly Programme of Work. The number of projects accepted has tripled in just four years, underlining the growing responsibility we are taking on. Just to mention a few areas of our current key activities: We are analyzing CBRN aspects of NATO's Readiness Action Plan, supporting a Live Agent Training Pilot Course, implementing CBRN Operational Planning Support, and supporting the development of the new CBRN Functional Service. We are also playing the key role in preparing and executing the CBRN portion of the biggest NATO exercise in more than fifteen years, TRIDENT JUNCTURE 2015.*

*For us, the CoE members, this is a huge challenge – a challenge to be more effective, more efficient, and to be able to deliver more with the same number of personnel. Hence, processes have to be optimized and streamlined, information sharing has to be introduced and improved, and data have to be presented in a coherent and easily retrievable manner. With the introduction of our new Knowledge Base, we are beginning to enhance information and knowledge management in our Centre of Excellence. We have developed this tool on our own to ensure that it perfectly fits our very special needs and requirements. Our Sponsoring Nations and other customers will see the difference soon; after a short period of introduction and getting familiar with this brand new tool, we will be able to deliver our products faster and with even better quality.*

*The initial effects of our internal enhancement processes have already received recognition and praise. During his visit in Vyškov on 16 July 2015, the Supreme Allied Commander Transformation, General Jean-Paul Paloméros, delivered his high appreciation in writing, and I feel honoured to just quote from his well placed remarks in our guest book: "I met men and women dedicated to their outstanding task. ... Your excellent Centre is a most valuable tool in NATO inventory."*

*We take this commendation as an incentive to further increase our quality of work, and I am happy and proud at the same time, to have joined a great team of highly motivated soldiers and civil servants in the right moment to take part in this enhancement process. By scrolling through this newsletter, you will realize the high engagement across all of our departments – from Operational and the Transformational Support to Training, to Education and Exercises and Real-Life Support. I hope you will enjoy the reading, and I look forward to receiving your feedback – just drop me a note or write to our directorate's mailbox assistant@jcbnrcoe.cz!*

A handwritten signature in blue ink that reads "Volker R. Quante".

*Volker R. Quante  
Colonel (DEU-A)  
Deputy Director Joint CBRN Defence Centre of Excellence*

# Implementation of CBRN operational planning support at the COE

The 2013 April Steering Committee represented an important milestone in the development of the Joint CBRN Defence Centre of Excellence (JCBRN Defence COE) as it faced several important decisions that would shape the COE activities and support to NATO for the following years. Once the France joining request became a reality, a new department was established, named the Operational and Plans Department (OPD), further renamed as the Operations Support Department (OSD) consisting of a CBRN ReachBack and Coordination Element (RBCE), a Modelling & Simulation Section (M&S) and a deployable CBRN Operational Planning Team (OPT), which will be introduced later within this article.

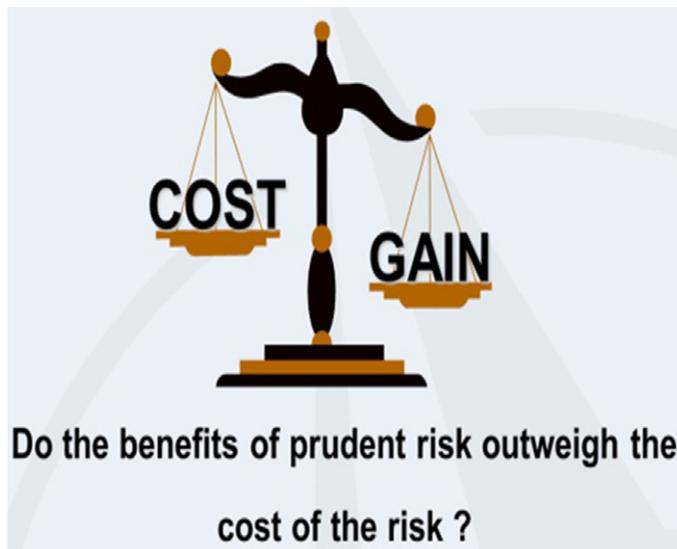
The initial mission of the Joint CBRN Defence Centre of Excellence, which was to provide training and education in the CBRN area, to support Allied Command Transformation (ACT) in NATO transformation issues and to represent the main advising structure on the CBRN defense domain has diversified since 2014 following the acceptance, implementation and provision of reachback and operational planning support capabilities to NATO.

In the light of NATO request to be provided with additional support to operations from the COE, the Operational Planning Support Team as a capability, was developed and implemented within OSD for the purpose of operational planning support to Allied Command Operations (ACO), Supreme Headquarters Allied Powers Europe (SHAPE) and Comprehensive Crisis and Operations Management Center (CCOMC) respectively. To enable the establishment of the OPST newly renamed as Operational Planning Support Section (OPSS), requirements, tools, policies and corresponding entities within NATO had to be defined. Additionally, its implementation required

addressing a few crucial questions:

- What are you aiming to achieve?
- What are you going to do?
- When are you going to do?
- With whom are you going to cooperate?
- What resources are needed?
- How will you know the objectives have been achieved?

The implementation phase was definitely challenging, the personnel being forced to adapt quickly, along the way, focusing on delivering the COE objectives translated into the OPSS name and scope, managing the workload better, trying and succeeding to cope with changes and challenges,



having confidence and trust on training and colleagues support and finally having a sense of achievement. Following first contact with OPSS requirements, the initial feeling was that planning is not just forecasting but influencing the people, planning is both an art and a science, nothing can provide you the right way to plan, nor the best one, plans should not be set in stone but adaptive, plans are not just thoughts written on paper, but something that should influence people's behavior and actions. With this understanding, everything became much clearer than

before, the structure found its role, place, scope and requirements, over several developmental stages.

The provision to NATO of the specialized operational planning support has therefore been a challenge despite the relatively rapid implementation of an initial operational capability. Additionally everything was a matter of personal acceptance and willingness. Moreover, the need to familiarize with the NATO structure and to develop the legal basis was a key issue for the process. Eventually, working collaboratively with department colleagues and corresponding parties in ACO, promoting the new capability within SHAPE and CCOMC have triggered cooperation for operational planning support via working visits and in place deployment to SHAPE/CCOMC to support operational planning related to Comprehensive Operations Planning Process (COPP) phase 1 Knowledge Development respectively, taking into account that Knowledge Development is a continuous process developed during all phases of COPP.

The process is ongoing and will be completed when everyone is aware of the added value from this new

COE capability. However its work will never end for achieving and fulfilling its basic mission which is to provide, in cooperation with others departmental structures like Modelling & Simulation and Reachback respectively, Subject Matter Expert (SME) operational planning support to SACEUR in support of NATO Operations Planning Process as well as NATO Crisis Response System (NCRS).

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# Exercise Trident Juncture from JCBRN Defence COE perspective



In light of the Russia-Ukraine conflict and the threat posed by the Islamic state, it is very important to display NATO's capabilities

to deal with all crises that it might face in the future, from whichever direction the threat might come.

Trident Juncture 2015 (TRJE15) is a high visibility exercise that will showcase NATO on the world stage. The purpose of TRJE15 is to train and test the NATO Response Force, a high readiness and technologically advanced force comprised of land, air, maritime and Special Forces units capable of being deployed quickly to conduct operations wherever needed. The exercise represents the final step in the certification process for the command and control elements of the NRF for 2016 for which JFC Brunssum will be the on-call Standby Command. The exercise will also allow Allies and partners the occasion to train, deploy and exercise in a complex and distributed environment. TRJE 15 Part 1 serves 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 Officer Scheduling the Exercise (OSE) is COM SACT. The Officer Conducting the Exercise (OCE) is COM JFCBS. The Officer Directing the

Exercise (ODE) for Part 1 is COM JWC, and for Part 2 is COM NCS Single Service Commands (SSCs) and NSHQ.

As was mentioned in the previous issue of the Newsletter, the JCBRN Defence COE has exceeded OSE expectations during the TRJE15 Exercise. The JCBRN Defence COE has not only been supporting SHAPE J7 Evaluation branch and JWC Training and Scenario Development Teams, but also playing the ODE role in the CBRN area.

Concept and Specification Development of TRJE15 was led by OSE and commenced in the beginning of the last year with the development of the Exercise Specification (EXSPEC).

Once Concept and Specification Development was completed, the OCE assumed responsibility for Planning and Product Development. The purpose of this stage was to determine specific planning requirements and to draft, coordinate, and promulgate the Exercise Plan (EXPLAN) as well as all required documents related to scenario and exercise play. Planning and Product Development must provide all deliverables that enable the exercise to be executed successfully. The five major deliverables were:

- (1) Training Objectives (TO).
- (2) OCE's Exercise Planning Guidance.
- (3) Exercise Plan (EXPLAN).
- (4) Scenario modules.
- (5) Main Events List/Main Incidents List (MEL/MIL).

The JCBRN Defence COE members from the Training Exercise and Education Department (TEED) participated in a variety of planning conferences and MIL/MEL workshops and actively helped to develop the TO for the Combined Joint CBRN Defence Task Force (CJ-CBRN D-TF). They also helped the JFC BS CBRN

Staff to develop the CBRN portion of the EXPLAN, and one of TEED members led the CBRN portion of Scenario and MIL/MEL development at workshops in JWC Stavanger.

JCBRN Defence COE as ODE has been responsible for the development of the CJ-CBRN-TF LIVEX Serialized Field Training Programme (SFTP) and training coordination with other Components Commands (CC).

Operational Conduct of the TRJE15 consists of a number of phases and sub-phases which describe the different level of activities: Phase I – Foundation Training, Phase II – Crisis Response Planning (CRP), Phase III – Execution and Phase IV – Assessment. Phases I and II have already been executed.

JCBRN Defence COE members prepared CBRN briefings and vignettes for the Training Audience (TA) and Key Leader Training (KLT) during Phase I Academic and KLT training.

TEED members observed and evaluated the JFC Brunssum CBRN Cell and CJ-CBRN-TF as part of the SHAPE J7 Evaluation team during CRP phase of TRJE 15 with a focus on their CBRN defence planning capabilities.

The execution phase of TRJE 15 will take place 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. This portion will prove the efficiency of scenarios and incidents prepared by JCBRN Defence COE members in order to fulfill all TOs and ensure the certification and evaluation of CBRN JAT and NATO CBRN Reachback Section.

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# US DOD and the COE - A CBRN Technical Arrangement in Action

History has shown the importance of having a partner in order to share information and knowledge while trying to solve complex problems. CBRN issues are no exception to this rule. Therefore the USA Department of Defense and the Joint CBRN Defence Centre of Excellence (COE) signed in December 2014 a Technical Arrangement (TA) in the area of mutual cooperation, information and knowledge exchange and CBRN Reachback support. As a part of activities covered by this document, a series of exercises and customer oriented training

has been recently utilized between the US Government's Defense Threat Reduction Agency (DTRA) and the JCBRN Defence COE.

As a first part of the TA implementation, mutual exercises have been conducted involving DTRA, the COE and the Czech National 314th CBRN Monitoring Centre.

As a next phase the training event has been recently delivered by the DTRA

Mobile Training Team (MTT). A week-long training course was focused on operating of the latest version of Hazard and Prediction Assessment Capability (HPAC) software. This training certainly accomplished its aims. Thirteen COE personnel were qualified as CBRN hazard prediction software users and operators, and they now provide the COE with a unique M&S capability for CBRN event hazard prediction within NATO.

The presence of the DTRA specialists also presented the opportunity to conduct face-to-face expert staff talks between the



members of the COE M&S Section and the DTRA SMEs on a variety of current

M&S issues was exploited to maximum extent. The discussions covered specific details of models included in HPAC with analytical merits of their use. The DTRA SMEs faced and tackled a number of questions raised by M&S Section experts arising from very specialized areas of modelling and simulation, such as urban modelling, building incident simulations, high definition terrain models, etc. In operational terms, this expert dialog also adds to the essential support which M&S Section provides to the newly established NATO CBRN Reachback Element.

This latest event proved the benefits of the practical application of the TA and has shown the importance of the relationship and cooperation with DTRA, which should continue and evolve for the sake of both organizations.

Colonel Willie J. FLUCKER, JCBRN Defence COE Chief of Staff, US Army, evaluated the training as "an excellent event in terms of quality of training, quality of instruction and in terms of the administrative and logistical planning, execution and support".

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## MSG 116 - Simulation for Training and Operation Group (STOG)

STOG (Modelling and Simulation Group 116, MSG-116) is a body through which nations are able to identify common needs for simulation to support training and operations. It also supports the approach of NATO Modelling and Simulation Group (NMSG). Most of the STOG members are subject matter experts dealing every day with Modelling and Simulation (M&S) issues from the perspective of the user. This specific perspective provides added value to other NMSG subgroups composed mostly of engineers and technicians. The addition of such a group of experts coming from the military and user sides is reducing time and risks for future developments.

The group provides a venue for member nations and participating NATO bodies and entities to discuss concepts for simulation mainly for land forces, with a view to:

- identify common concepts that may have general application to member nations, NATO or other international organizations.
- provide co-ordination and support where necessary among nations, in NATO (NMSG, M&S COE, NATO Communication

and Information Agency, etc.) in the area of M&S.

- provide guidance to the development of policy and standards for the use of simulation in support of training.

The JCBRN Defence COE took part in the last two meetings where its M&S of CBRN were promoted. The approach to use M&S capabilities in support of operations was highly appreciated. Providing the M&S CBRN service through a Virtual Private Network (VPN) was found also very valuable and nations and NATO bodies expressed much interest in the COEs involvement in their future M&S interoperability experiments (the Netherlands' national M&S interoperability in support of operations, CWIX organized at Joint Force Training Centre in Bydgoszcz etc.).

The STOG Chairman is going to report on major STOG outcomes during the NMSG Business Meeting in Munich in October 2015. The knowledge document (sharing best practices in M&S), current status of M&S best-practices database

development and STOG way ahead will be presented, but by that time the NMSG mandate given to STOG will have expired. Nevertheless, as projects related to M&S are getting more and more sophisticated, not only because of the technologies being involved, but also because of SME's interactions needed once the systems are deployed, it is expected that a similar activity will continue. Moreover, there is 4 separate "STOG" groups oriented on different scopes - Land, Air, Maritime and Cyber in very near future. And the JCBRN Defence COE is going to continue in its participation in STOG, mainly contributing in the upcoming STOG-L (Land).

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# LAT pilot course – step towards NATO CBRN Training Standardization

The Training Needs Analysis (TNA) process for Live Agent Training has passed the Analysis and Design Phases. Live Agent Training now goes through development phase and moves closer to implementation.

The Joint Chemical, Biological, Radiological and Nuclear Defence Centre of Excellence (JCBRN Def COE) organized and conducted a Pilot Course for Live Agent Training in September 2015. The goal was to receive feedback on whether Conclusions from TNA meeting from TNA meeting have described essential NATO gaps and challenges for Live Agents Training.

The TNA process started in June 2014 when the JCBRN Def COE hosted Subject Matter Experts from four NATO countries (Czech Republic, Germany, the United Kingdom and Slovakia) and one PfP country (Austria). Discussing the Target Audience, Performance Objectives, Learning Objectives and potential Training Options articulated the necessity to design and develop a new training opportunity involving the following attributes:

1. The Alliance requirements are extended from CBRN reconnaissance and CBRN decontamination to CBRN EOD issues and CBR forensics (sampling & identification

and CBR exploitation).

2. Focus of Training Audience is aimed at NATO CBRN and CBRN related specialists, possibly OPCW inspectors and potentially European Union experts.

3. Training objectives take into account aspects of confidence in equipment and capabilities; skills improvement; and positive development of esprit de corps.

4. Nerve agents, blister agents and irritants are under the scope of this training.

5. The Proficiency Criteria must take into consideration national laws and regulations for safety precautions; and professional knowledge as necessary enablers for practical training.

This TNA meeting also expressed that: "...NATO Live Agent Training as a standardized training module is needed..." For development of a NATO-accepted Live Agent Training Course the JCBRN Def COE generated a collaborative environment where NATO-countries' course participants cooperated with research institutions and specialists. The Pilot Course took place in the Live Agent Training and Testing Facility of the Military Research Institute Brno.

Participants from the Czech Republic, Hungary, Italy, Slovakia and the United Kingdom established a team of experts

which, concurrent with training, observed and evaluated user training design, methodology, tactics, techniques and procedures, and materiel, facilities and equipment. Comments from participants and Questionnaire-based feedback are planned to be included in the Course Control Documents to drive "basic NATO Live Agent Training standardization" forward.

Introduction and application of this training module will help to unify an approach to training for NATO countries that already have this type of training. Other NATO countries with needs won't have to re-invent the wheel regarding NATO standard – proficiency level Live Agent Training. It can also benefit the force generation process by preparing mission-tailored units for deployment in regions where CBRN threats can significantly influence NATO operations.

Implementation of this standardized training module into the Alliance environment will also introduce a basis for subsequent training levels including the Advanced LAT and Instructor LAT Courses. These three levels, when implemented, will be able to cover the live agent training needs of the NATO CBRN Defence.

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# CBRN aspects in NATO's new Readiness Action Plan



**“In order to ensure that our Alliance is ready to respond swiftly and firmly to the new security challenges, today we have approved the NATO Readiness Action Plan. It provides a coherent and comprehensive package of necessary measures to respond to the changes in the security environment on NATO’s borders and further afield that are of concern to Allies. It responds to the challenges posed by Russia and their strategic implications. It also responds to the risks and threats emanating from our southern neighborhood, the Middle East and North Africa. “The Plan strengthens NATO’s collective defense. It also strengthens our crisis management capability. The Plan will contribute to ensuring that NATO remains a strong, ready, robust, and responsive Alliance capable of meeting current and future challenges from wherever they may arise.” – NATO Wales Summit declaration, 5 September 2014**

For more than two decades NATO has focused on crisis management operations, starting in the Balkans in the early 1990’s and culminating in the largest Allied operation ever in Afghanistan. Putin’s intervention in Ukraine in 2014 has brought the Alliance back to its core business: territorial defense under article 5 of the Washington Treaty. The Wales Summit in September 2014 marked the turning point; Allied leaders approved the NATO Readiness Action Plan (RAP). The RAP introduces measures that together aim to enable the Alliance to respond in a timely and robust way to the new security challenges in and near Europe, which emanate from the East as well as from the South. The RAP contains two main pillars: Assurance Measures and the Adaptation Measures.

## **Assurance Measures**

The assurance measures are a series of land, sea and air activities in, on and around the territory of NATO Allies in Central and Eastern Europe, designed to reinforce their defense, reassure their populations and deter potential aggression.

Since May 2014, NATO has increased the number of fighter jets on air-policing patrols over the Baltic States, and deployed fighter jets to Romania and Poland. Allies have deployed aircraft

to Romania for training purposes. The Alliance has also commenced regular AWACS surveillance flights over the territory of its eastern Allies, and maritime patrol aircraft flights along the eastern borders of Allied territory. To provide assurance at sea, NATO is deploying a number of multinational maritime forces such as a Standing NATO Mine Counter-Measures Group patrolling the Baltic Sea and the Eastern Mediterranean, and an enlarged Standing NATO Maritime Group conducting maritime assurance measures in addition to counter-terrorism patrols. NATO is also increasing the number of exercises it organizes mainly at tactical and operational level.

## **Adaptation Measures**

Adaptation measures are longer-term changes to NATO’s forces and command structure which will make the Alliance better able to react swiftly and decisively to sudden crises.

### **• An enhanced NATO Response Force**

Allies decided to enhance the NRF to strengthen the Alliance’s collective defense and to ensure that NATO has the right forces in the right place at the right time. The NRF will now consist of up to 40,000 personnel – a major increase from the previous level of 13,000. A new quick-reaction VJTF or “spearhead force” of around 5,000 ground troops is now operational. Their lead elements are able to start deploying in just 48 hours. The VJTF will be supported by air, maritime and SOF components. This autumn, as part of its training and preparation, the VJTF brigade will participate in NATO’s high visibility exercise, Trident Juncture 2015 which will be conducted with over 30,000 troops mainly in Italy, Portugal and Spain.

### **• Multinational NATO Command and Control centers**

Six multinational command and control centers - the NATO Force Integration Units (NFIUs) – are being established in Bulgaria, Estonia, Latvia, Lithuania, Poland and Romania initially, constituting a visible and persistent NATO presence in these countries. These NFIUs are being staffed by about 40 national and NATO specialists. Their task will be to improve cooperation and coordination between NATO and national forces, as well as to prepare and support exercises and any deployments needed.

### **• High readiness multinational headquarters**

The Multinational Corps Northeast Headquarters is being developed by Denmark, Germany and Poland to provide an additional high readiness capability to command forces deployed to the Baltic States and Poland if required and

to enhance its role as a hub for regional cooperation.

## **CBRN Aspects**

Will the nature of the current measures lead to the CBRN capability changes to counter the new types of challenges?

Newly introduced Hybrid warfare seeks to exploit any seams, or in Allied organizations or operations gaps. For NATO this could mean that an opponent exploits the seams between collective defense, crisis management, and cooperative security. Recently, the use of tactical nuclear arms has been mentioned by President Putin as being a viable option to solve crises in Moscow’s favor. In response to such developments, NATO must leave no room for ambiguity.

Better military preparedness for operations in CBRN environment also means that the exercise range should include transition scenarios from conventional and/or hybrid even to nuclear operations. Obviously, including them in the exercises will help to achieve a higher level of ability at employing such capabilities, which is a necessity since the level and intensity of NATO involvement in security operations has gone down in recent years.

The current steps also bring actual new, or re-found, operational capability to the Alliance in the field of rapid response. Newly established VJTF concept, where CBRN Task Force also plays a critical role, brought the addition of a VJTF deployment exercise (Noble Jump) and readiness exercise (Trident Joust). Both exercises directed by SACEUR on short notice, will prove and demonstrate new concept responsiveness.

In the Lessons Learned field, various services have already started to analyze the implications of Hybrid Warfare and Future Article V Missions for the Concept of NATO Support, to determine which regulations, planning and procedures need to be optimized or modified. For the CBRN community first big source of information could be found at upcoming exercise Trident Juncture 2015.

## **Conclusion**

The RAP is trying to ensure that NATO can effectively challenge hybrid warfare’s fusion of conventional, covert military, paramilitary, and disinformation campaigns from any adversary. The training, Exercise and Education Department will soon face the reality of modern concept exercises and we must make sure that CBRN capabilities are visible and following all the aspects of the changing security environment.

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# Functional Services for Command and Control of CBRN Defence – CBRN Defence Functional Service (CBRN FS)

The CBRN FS is an integral part of the Bi-Strategic Command (Bi-SC AIS) Automated Information System Capability Package (Functional Services for Command & Control of Operations), which has been recognised as one of the NATO Critical Long Term Capabilities in support of current and future operations in the “Most Pressing Capability Needs Package” approved in the Lisbon Summit (2010) As you may recall, more than two years ago, LTC Frank Kämper, HQ SACT CBRN Staff Officer, wrote for the JCBRN Defence COE Newsletter an article starting with a statement – “A long and painful process, especially for those of us working on this issue for a long time, seems to be **finally coming to a happy end** with the initial development of the CBRN Functional Service (CBRN FS).”

From today’s perspective, LTC Kämper was quite optimistic concerning the

which are planned and tasked at these levels, but then executed elsewhere (e.g., by CBRN Units, or CBRN Collection Centres, etc.).

Figure 1, shows a simplified picture of the CBRN FS system (red rectangle) and its command and control interfaces to manage (i.e., plan, task, and monitor) the CBRN enabling components.

Currently, within NATO Command Structure, there is no comprehensive automated system available, responding to all CBRN Defence Information Management components’ needs. That is the one of the main weaknesses of the current CBRN information systems capabilities which could be summarized as follows:

- Based on a mixture of proven, but limited, **standalone tools**;
- Focused on warning and reporting

- establish the CBRN threat level;  
- conduct the full range of missions when facing a CBRN threat and following an attack with CBRN weapons and/or devices or intentional or accidental release of hazardous materials to operate in a CBRN environment.

## CBRN-FS – What is it?

The CBRN FS can be defined as an assembly of equipment, methods and procedures, organized so as to cover all CBRN IM functionalities and processing functions. Essentially, the CBRN FS capability is needed to provide timely, accurate and appropriate information on a CBRN incident or incidents.

**The CBRN FS objective identified by the CBRN FS project mandate** is to provide a capability to develop, display, disseminate and maintain the CBRN Defence contribution to the Joint Common

Operational Picture (JCOP) by enabling NATO command and control arrangements at the strategic and operational levels to:

1. take informed decisions on an appropriate NATO response to a CBRN threat, including WMD proliferation activities or hostile CBRN incident against NATO forces and/or NATO territory;
2. assess information on CBRN as provided through INTEL FS and other INTEL sources;
3. assess CBRN Defence related intelligence and identify options and develop recommendations to NATO commanders to support or conduct appropriate CBRN counter and defensive measures to break the CBRN incident chain;
4. perform CBRN calculations, predict hazard and hazard

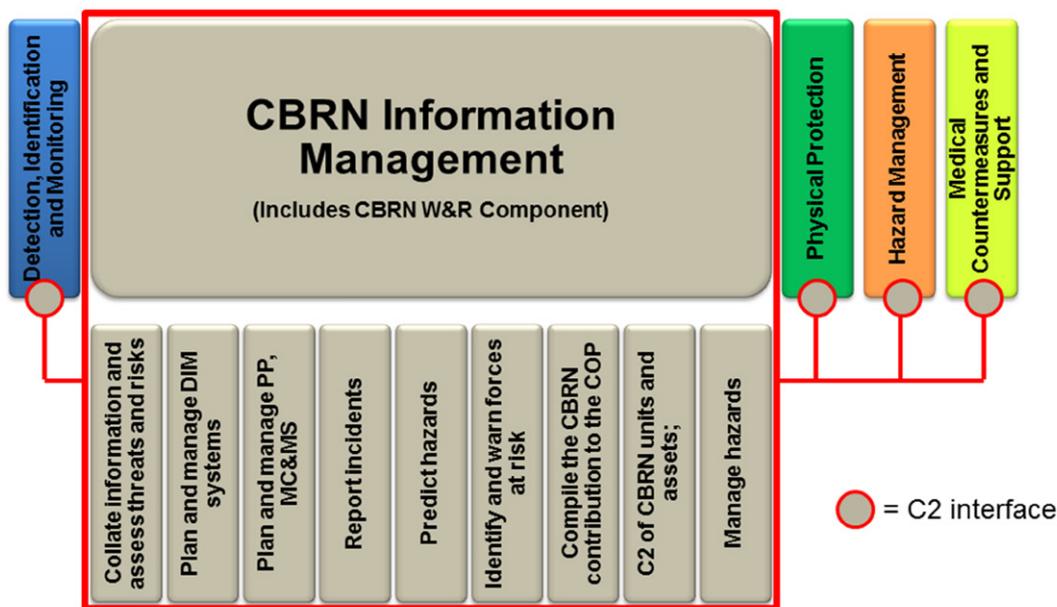


Figure 1

happy endings and the CBRN FS Initial Operational Capability (IOC) date, but CBRN FS development is experiencing some delays.

## Current situation in CBRN Defence Information Management

CBRN Information Management (IM) at the Strategic and Operational level must also consider tasks stemming from other CBRN enabling components (Detection, Identification and Monitoring, Physical Protection, Hazard Management and Medical Countermeasures & Support)

but do not meet all NATO requests for CBRN Defence Information Management functions;

- Tools are **not standardized** across commands, not centrally managed;
- The tools’ **Interoperability** with other Bi-SC AIS applications is not guaranteed. It is commonly agreed, that it is essential, to provide the Alliance with a CBRN FS to support NATO forces to accomplish following tasks:
  - prevent the proliferation of weapons of mass destruction and defend against CBRN threats;

propagation based on meteorological and terrain data, facilitate route planning in order to ensure freedom of movement, generate reports and warning messages;

5. store and manage CBRN Defence related data, CBRN forces availability, units at risk, reports, routes and damages for both exercises and operations separately;
6. send assessment and warning reports to forces at risk;
7. exchange information with the interim Ballistic Missile Defence C2 capability with regards to early warning of ballistic missiles, Consequences of Interception

and/or Consequences of Engagement (COI/COE).

Compared to the current situation, CBRN FS will replace the existing capability and provide the command with information that will help **to prevent** CBRN incidents, **to protect** NATO forces from the effects of CBRN incidents, and **to take recovery actions**, so that NATO forces are able to accomplish the mission and maintain freedom of action in a CBRN environment in accordance with the new NATO CBRN Defence Concept approach.

**Who are the CBRN FS users?**

The primary users of the CBRN FS are all NATO Command Structure (NCS) Headquarters and Centres **eligible for NATO Common Funding**. Essentially SHAPE, the ACO Joint Force Headquarters and the ACO Single Service Commands.

Additionally, due the fact that the JCBRN Defence COE will provide CBRN Reachback for any NATO operation, it has also been added to the list of the CBRN FS users.

**CBRN FS Project management.**

At this point, it is important to inform readers of how the CBRN FS Project is managed and who are the process executive bodies. In this stage of development, the responsibilities for project execution are split among following stakeholders.

1. NATO Communication and Information Agency (NCIA);
2. CBRN FS Operational Coordinator (OCO);
3. **CBRN FS User Working Group (UWG);**
4. NATO Investment Committee (IC).

**NCIA** – will assist project Host Nation (HN) who is responsible, overall, for effective and economic procurement of the CBRN FS.

**CBRN FS OCO** - There must be a seamless coordination between the capability being delivered and the capability being utilised. To effectively facilitate this transition, an Operational Coordinator (OCO) has to be identified. Since the Allied Command Operations (ACO) has been recognized as the main user of the capability, SHAPE has taken the CBRN FS OCO role.

**CBRN FS UWG** – In order to successfully accomplish the CBRN FS OCO duties and to effectively interface the FS to end-users (JFCs, FCs), the OCO has established the CBRN FS UWG. The UWG comprises CBRN experts and Planning Staff within ACO, NATO affiliated bodies and other organizations including JCBRND COE. The UWG's main goal is to provide the NCIA with operational requirements for the CBRN FS, coordinate the FS System

Requirements Specifications and respond to any NCIA questions related to the FS user needs.

**CBRN FS development – The Project Schedule**

CBRN FS development has been delayed more than two years due to many external factors influencing such capability development.

The table below shows the updated CBRN FS Project Schedule with the 2nd stage request for the project authorisation:

provide sufficient data to the system. The next CBRN FS UWG meetings will define this issue with the goal to identify exactly databases would be needed to support NATO operations, what databases are currently available in NATO Command Structures/JCBRN COE and what databases shall be retrieved from the Nations.

So, even though we can see the completion of the CBRN FS development close on the horizon, there are still many tasks to be accomplished to finally make it operational.

Milestone	Date
Advance Planned Funds (APF) authorization	Jul 2012
Investment Committee (IC) Authorization	Sep 2015
Invitation for Bidding (IFB) release	Oct 2015
Contract award	Oct 2016
Provisional System Acceptance (PSA -1) of the FS <b>Demo Build</b>	Jul 2017
Provisional System Acceptance (PSA-2) of the Initial Operational Capability ( <b>IOC</b> ) Build	Jul 2018
Final System Acceptance.- Full Operational Capability ( <b>FOC</b> )	Aug 2019

**JCBRND COE Support of the CBRN FS development**

ACT requested JCBRN Defence COE to include support to CBRN FS development within its Programme of Work (POW). The support exactly means a commitment to act as a CBRN FS UWG member, to host the UWG meetings as required and to provide recommendations to the UWG/NCIA about optimal solutions for the FS. As a consequence, any fundamental documents related to the FS are reviewed and commented by COE.

There is a common agreement within JCBRN Defence COE, to continue with the support of the FS development in accordance with SHAPE requests towards the CBRN FS FOC.

Nevertheless, it is also important that the entire JCBRN COE Operation Support Department (OSD) is planned to be **an active user of the CBRN FS**. For such a purpose a sufficient number of the CBRN FS “clients” have been allocated for the COE OSD by the CBRN FS System Requirement Specification (SRS) document.

The CBRN FS project beside others, will integrate the system into Bi-SC AIS, support the system security accreditation, and will provide FS initial operational support. Therefore, in order to make the CBRN FS operational, there is a need to

*Author: LTC Rudolf KONAR (CZE)*

# COE Support to Development of Allied Joint Doctrine for Comprehensive CBRN Defence

The JCBRN Defence COE serves as a driving force for NATO CBRN defence capabilities, offers recognized expertise and experience to the benefit of the Alliance and supports NATO's CBRN Defence transformation process. On the doctrines and concepts framework, JCBRN Defence COE contributes to the development of Allied Joint Publication (AJP) 3.8 (Allied Joint Doctrine for Comprehensive CBRN Defence) and its subordinate documents, Allied Tactical Publication (ATP) 3.8.1 Vol. I (CBRN Defence on Operations); ATP 3.8.1, Vol. II (Specialist CBRN Defence Capabilities); and ATP 3.8.1 Vol. III (CBRN Defence Standards for Education, Training and Evaluation).

The JCBRN Defence COE also provides the chairmanship and secretary to the leading body for development of CBRN doctrine and terminology - Doctrine and Terminology Panel (DTP) and custodianship of AJP 3.8 and ATP 3.8.1 Vol. I. The DTP, which has played a major role in CBRN doctrine and terminology development over 12 years, meets twice a year to gather CBRN knowledge from leading NATO Nations in the CBRN domain. The DTP Chairman, together with the secretary are responsible to conduct and administratively support the proper function of the DTP meetings in order to make progress and follow the directives of the superior body, the JCBRN Capability Development Group (CDG).

The AJP 3.8 custodian harmonizes the work and technical issues with subject matter experts (SME), coordinates the actions taken during DTP meetings and incorporates the inputs received from the nations in order to prepare a comprehensive document for final approval. He is also responsible for updating and informing the delegates about new directives or suggestions coming from superior body and other entities. Additionally, the custodian is tasked to ensure that standardization documents are consistent with NATO regulations, policies, and other related standardization documents. He follows the proper formatting and structure of NATO documents in accordance with NATO procedures.

The following paragraphs provide a summary of the current status of AJP 3.8, which is now under development, in order to follow the new NATO Comprehensive Approach.

AJP 3.8 is the capstone CBRN defence doctrine for the NATO. It provides strategic and operational commanders with guiding principles for the planning, execution and

support of NATO operations where there is the threat or actual use of CBRN. The current version (March 2012) is AJP 3.8 (A). It reflects developments in CBRN Defence, the evolving strategic context, the Allied Joint Doctrine for Comprehensive CBRN Defence and NATO's new comprehensive strategic-level policy for preventing the proliferation of WMD and defending against CBRN threats. However, according to the JCBRN CDG, a new version is under development at this time based on the NATO Comprehensive CBRN Defence Concept Military Committee (MC) 603/1, which adopted the new NATO three-pillar approach to Weapons of Mass Destruction (WMD) non-proliferation and CBRN defence:

- (1) To prevent the proliferation of WMD by state and non-state actors (PREVENT);
- (2) To protect the Alliance from WMD attack or CBRN incident should prevention fail (PROTECT);
- (3) To recover should the Alliance suffer a WMD attack or CBRN incident (RECOVER).

This new approach follows the guidance of the Director General of The International Military Staff (DGIMS) in 2009 concerning NATO's Comprehensive, Strategic-Level Policy for preventing the proliferation of WMD and defending against CBRN threats. It is in accordance with the relevant decisions taken by NATO's respective authorities.

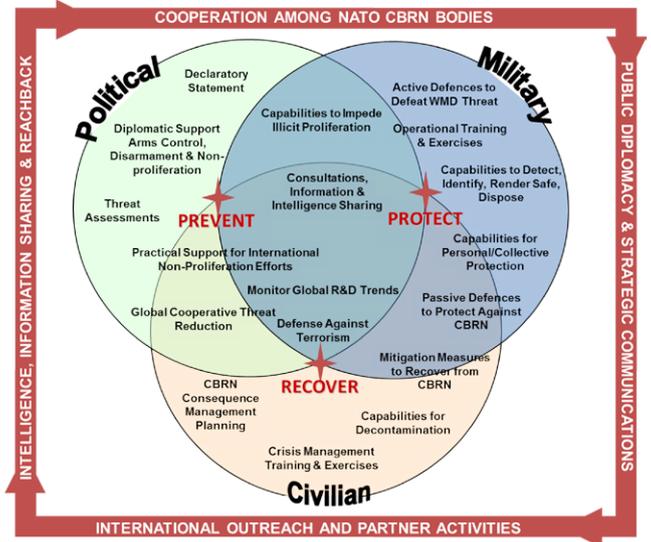
The DTP started to work on the new version of AJP 3.8 in May 2013 and the ratification draft is on track to be promulgated during the first half of 2016.

A figure depicting the relationship among the three pillars and how they connect the political, military and civilian domains is provided - picture 1:

CBRN defence doctrine prescribes a combination of active and passive measures to protect the force, but according to the new approach other proactive elements that utilise military and civilian capabilities will also be integrated. In addition, governmental or civilian organisations may take the lead

or contribute to prevention and recovery activities.

The CBRN defence comprehensive approach uses increased civil-military interaction, improves coordination and



picture 1

cooperation and brings benefits at the strategic level, ensuring a more holistic approach in meeting the CBRN threat. The importance of CIMIC (Civil – Military Cooperation) has increased due to the fragile security environment, which may lead to terrorist actions involving the use of CBRN substances.

Additionally, a new WMD Disablement project is under development, which is in accordance with the directives of last NATO Summit conducted in Wales in 2014.

Author: Cdr Spyridon KOLOVOS (GRC-N)

# Senior Enlisted Advisor thoughts



In this publication of the COE Newsletter, it is my honour to dedicate this page to Warrant Officer First Class (WO1) Tomas ANDR, JCBRN Defence COE International Staff Support Specialist. He is the first COE Senior Non-Commissioned Officer to complete

the Senior Non-commissioned Officers Building Integrity Course (SNCOBIC).

## Senior Non-Commissioned Officers Building Integrity Course 2015

The SNCOBIC is organized by the Peace Support Operations Training Centre, located in Sarajevo, (Bosnia and Herzegovina). The course objective is to raise awareness of corruption and to promote integrity by strengthening the leadership and management skills of the Senior NCOs. The long-term goal is to enhance NCO professionalism, competency and effectiveness in national and multinational working environments.

In probe explanation:

The NATO Building Integrity (BI) Programme was launched in the The Euro-Atlantic Partnership Council (EAPC)

in November 2007 to raise awareness and develop practical tools to help nations build integrity, transparency and accountability and reduce the risk of corruption in the defence sector.

At the Chicago Summit in 2012, NATO heads of state and government established BI as a NATO discipline and agreed to the development of a BI Education and Training Plan.

At the Wales Summit in 2014, NATO heads of state and government committed to continue to promote transparency, accountability, and integrity in the defence sectors of interested nations through the Building Integrity programme.

Major course topics include:

- Corruption, its nature and prevalence in the personal and functional context;
- Function of the rule of law and its role in building integrity and its function in countering corruption;
- Building integrity, Military Morals and Ethics;
- Corruption Risks within Defence Procurement and Disposal Process;
- Corruption Risks and Challenges in Peace Support Operations.

The Senior Non-commissioned Officers Building Integrity Course provides great

training that teaches Senior NCOs to use racial and cultural diversity as an asset. The presence of 13 nations (Albania, Austria, Bosna and Hercegovina, Croatia, Czech Republic, Georgia, Jordan, Kyrgyz Republic, Macedonia, Serbia, Tunisia, Ukraine, United Kingdom ) at this course has been an excellent example of a multicultural professional collaboration in which military personnel from different countries and races work together for a common purpose. This mix of cultures and experiences has significant potential benefits, but it could also become a difficult situation if communication and good relations are not developed.

Overall, this course is effective at raising non-commissioned officers' awareness regarding the nature of corruption and its impact on society. It also develops and enhances the NCO skills needed to minimize corruption risks and increase operational effectiveness in today's national and multinational environment.

Authors: CWO Ivan HLADIK (CZE),  
WO Tomas ANDR (CZE)



## CBRNe SUMMIT ASIA

JCBRN Defence COE will support and participate CBRNe SUMMIT ASIA in Singapore

(2nd – 4th December 2015, Singapore, Asia).

CBRNe threats are becoming a consistent threat across different regions of the world. CBRNe Summit Asia will discuss the threats faced in the Asia-Pacific region and review the current capabilities of both the military and civilian agencies at combating a CBRNe threat.

Many intelligence agencies are becoming more concerned about the threat of a biological attack on a city, shopping mall, metro/underground station or government building. CBRNe Summit Asia will focus on the Medical Intelligence used by the civil and military organisations to help prepare or counter a biological threat.

CBRNe Summit Asia will bring together leading officials from regional Armed Forces, Hospitals, Intelligence

Agencies, Civil Defence Agencies, Fire Departments, National Police Forces and leading CBRNe commercial companies.

### Esteemed Speaker List:

- Dr. Ted Herbosa, Under Secretary, Department of Health, Philippines
- Brigadier PP Malhotra, Deputy Director General, Perspective Planning (CBRN), General Staff, Indian Army
- Colonel Dr Pisutti Dararutana, Chief, Research and Development, Chemical Department, Royal Thai Army
- Colonel Ronny Asnawi Asri, Deputy Director, National Counter Terrorism Agency, Indonesia
- Lieutenant Colonel Jeffrey Allen, Foreign Consequence Management, Defense Threat Reduction Agency (DTRA), U.S. Department of Defense
- Lieutenant Colonel Yulianto Rombey, Commander of Detachment E/CBRN, 1st Regiment Gegana Mobile Brigade Corps, National Police Force, Indonesia
- Major Andrea Gloria, Protection Course Director and Instructor, Protection

Department, NATO School Oberammergau

• Brett Hickman, Manager Detection Technology, Clearance Services Directorate - Verification and Systems Branch, Ministry for Primary Industries, New Zealand

• Dr. Michael Thornton, Head, EU CBRN Risk Mitigation Centres of Excellence, European Commission

• Dr. Francesco Marelli, CBRN Risk Mitigation and Security Governance Programme, United Nations Interregional Crime and Justice Research Institute (UNICRI)

• Dr. Rohan Gunaratna, Head of International Centre for Political Violence and Terrorism Research (ICPVTR), S. Rajaratnam School of International Studies, Singapore

• Dr. Alzamani Idrose, Consultant, Emergency Physician, Kuala Lumpur Hospital, Malaysia

• Dr. Sabai Phyu, Deputy Director – Operations, BSL-3 Core Facility, Dean's Officer, Yong Loo Lin School of Medicine, Singapore

• LiYen Chang, Deputy Director, Tropical Diseases Research & Education Centre, Malaysia



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# Newsletter

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