

## The Concept of CBRN Defence and Possibilities of its Application in the Czech Armed Forces

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### Abstract

Weapons of mass destruction are understood as permanent and significant threat not only for armies but also for civilian inhabitants. Application of uniform concept of force protection, respectively CBRN Defence introduces a basic frame for uniform command and control of forces in operations. The article introduces current valid Czech definitions of Armed Force Chemical Corps, CBRN Defence and chemical support.

**Keywords:** Czech armed forces; Chemical corps; CBRN Defence; Chemical support

### Introduction

Nowadays, both conceptions “Chemical Support” (CS) as a part of the support of troops operations and “Chemical, Biological, Radiological and Nuclear (CBRN) Defence” included in a category of force protection are currently used in the Czech Armed Forces (CAF) [1]. Alone division of measurements included into both categories is quite difficult mainly from the point of view of particular tasks recognition which have to be fulfilled by troops in operations. From this reason some activities have been developed in order to determine a new framework of integrated measurements which will be understood in a totally unique way and moreover, accordingly with North Atlantic Treaty Organization (NATO). As an ideal connected link the NATO Allied Joint Publication AJPO-3-14 has become.

### Determination of Chemical Corps and its Relationship to CS and CBRN Defence

Although, fulfillment tasks of CS and CBRN Defence is a combined arms meter so within their realization the Czech Armed Forces (CAF) Chemical Corps (CCs) [2,3] play absolutely important role. From this reason it is necessary to explain and stress some starting points in a framework of both CS and CBRN Defence thereby to determine initial solutions for their combination. Binding and valid military regulations and publications which representatives are “Field order of Army Ground Forces<sup>1</sup>, a proposal of Všeob-Ř-1<sup>2</sup>, military regulations Vševojsk-2-1<sup>3</sup>, Vševojsk-2-6<sup>4</sup> and terminological norm of CCs<sup>5</sup> and military publication Land Forces in Operations<sup>6</sup> is CCs, CC and CBRN Defence defined in different ways [4]. This fact causes problems with unique specification of CCs contents and clear definition of fulfilled tasks. Some definitions are introduced in chapters 1.1, 1.2, and 1.3.

### CAF CCs definitions

Terminological norm NN 30 0101 is a binding military regulation

<sup>1</sup>Všeob-Ř-1. *Polní řád pozemních sil Armády České republiky*. 2. vyd. Praha: Ministerstvo obrany, 1997. 192 s.

<sup>2</sup>Všeob-Ř-1. *Polní řád pozemních sil Armády České republiky*. [Návrh předpisu]. 1. vyd. Praha: Generální štáb AČR, 2002. 329 s.

<sup>3</sup>Vševojsk-2-1. *Ochrana vojsk proti zbráním hromadného ničení*. Praha: Ministerstvo obrany, 2009. 197 s.

<sup>4</sup>Vševojsk-2-6. *Chemické zabezpečení v Armádě České republiky*. 1. vyd. Praha: Ministerstvo obrany, 2008. 109 s.

<sup>5</sup>NN 30 0101. *CHEMICKÉ VOJSKO: Názvoslovná norma*. 3. vyd. Praha: Ministerstvo obrany, 2009. 222 s.

<sup>6</sup>Pub-31-10-01. *Pozemní síly v operacích*. 1. vyd. Vyškov: Odbor doktrín VeV-VA, 2011. 337 s.

which sets definition determination of terms within CCs competence. In that norm there is introduced that CCs is a branch of CAF. It fulfills the most complicated and specific tasks measurements of CS within CBRN monitoring, CBRN hazard management, radiation and chemical accidents, troops’ protection in areas contaminated CBRN compounds and Toxic Industrial Materials (TIM). It is created by units of CBRN survey, decontamination and others. Their parts are groups and centers of warning and reporting.

The military regulation Všeob-Ř-1 defines the CCs which is designated for CS of troops. It fulfills the most complicated and specific measurements of CS in CBRN monitoring, within CBRN hazard management, radiation and chemical accidents, troops protection in areas contaminated by CBRN compounds and TIM. Selected forces take part in operations in the peace on the Czech Republic territory. It is formed by a brigade level formation, formations and units of CBRN survey, CBRN protection, decontamination and others. Their parts are collected and management groups of CBRN monitoring (CBRN cell workplaces, workplaces and centers of CBRN warning and reporting and so forth).

In a proposal of Field rules of CAF ground forces there is introduced that CCs is designated for CS of brigade level formation, formations and equipments. It fulfills the most complicated and specific tasks of CS within CBRN monitoring, CBRN management, radiation and chemical accidents, brigade level formation, formations and equipment CBRN protection in areas contaminated radioactive and toxically compounds and within masking. In the area of protection against biological weapons it performs general biological survey.

Military publication Pub-31-10-01 sets that CCs: Is designated for CS of brigade level formation, formations and equipment. In the area of protection against biological weapons it performs general biological survey.

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From above mentioned definitions result from that CCs fulfils tasks of CS and takes part on CBRN Defence. From it follows, that in both cases it fulfils professional tasks based on employment of the same technical devices, procedures and methods. Tasks fulfillment come into the category of CS are significantly preferred. It follows from views of CCs task specification before joint to the NATO. Furthermore, in current time CCs fulfills significant tasks within Czech Republic Integrated Rescue System (IRS). These tasks are neither exactly nor generally mentioned and it is only possible to hope that tasks within IRS are going to be completed in a mentioned scope. These tasks are specified in so called type activities of IRS parts, which are not elaborated in forms of military regulations, but activities performed in the responsibility of Fire Brigades. CCs play the role of cooperation provider within their realization.

## Definition of CS

Terminological norm of NN 30 0101 sets that CS is a kind of a support of troops operations whose aim is created needed conditions for tasks fulfillment within contamination CBRN compound to troops and to participate on their protection. CS includes:

- CBRN monitoring;
- Physical protection of people and material of brigade level formations, formations and equipment (objects) against effects of CBRN compounds and TIM;
- Decontamination of personnel, equipment, vehicles and material of brigade level formations, formations, units, equipment, terrain, roads and objects.

Military regulation Vševojsk-2-6 introduces that: "CS is a part (kind) of the support of troops operations." And advert to the article 154 of Všeob-Ř-1. In this article there is only named the framework of the support of troops operations whereas particular measurement of CS are elaborated in the head 4, part 4 "Chemical Support". In the first article of introduced part (article 174) in named that CS includes:

- CBRN monitoring;
- Physical protection of brigade level formations, formations and units (objects) against effects of CBRN compounds and TIM;
- Decontamination brigade level formations, formations and units (equipment), terrain, roads and objects.

In the military regulation Vševojsk-2-6 measurements of CS are not listed. The text of the head 1, part 2 "Ways of CS tasks fulfillment" enables to summarize single measurements of CS in the way that CS includes:

- CBRN monitoring;
- Physical protection of people and military material of brigade level formations and units (military objects) against effects of CBRN compounds and TIM;
- Decontamination. This part adverts on military regulation Všeob-Ř-1, article 183. In that article is noted: "Decontamination of formations (units), terrain, roads and objects.

The military publication Pub-31-10-01 notes that: "CS (CBRN Support) creates a complex of measurements whose aim is creates needed conditions for tasks fulfillment within contamination CBRN compound to troops and to participate on their protection.

Single CS measurements are in above mentioned military regulations

(norm and publication) defined very similarly. It is necessary to note that to very important correction of single measurements came by the approval of the first supplement to Všeob-Ř-1 dated on the 11st of April by the ministry of Defence Vlasta Parkanová. This supplement in the only one supplement of regulation Všeob-Ř-1 and it touches only corrections within CAF CCs responsibility. In the same year military regulation Vševojsk-2-6 was approved. This one comes out from Všeob-Ř-1. To complete the author adds that terminology norm NN 30 0101 was authorized in 2009. Nonetheless, a process of preparation and final release of Vševojsk-2-6 was relatively long in comparison with NN 30 0101 thus it is possible that just from this reason came out to above mentioned deferent terms explanation.

## CBRN defence definition

The terminology norm NN 30 0101 defines CBRN Defence as a complex of organizational and technical measurements and activities which have the aim to weak an influence and remove effects of Weapons of Mass Destruction (WMD) and TIM release. With application of these actions to contribute to keeping of a combat capability of troops. Parts of CBRN Defence are:

- Detection, identification and monitoring;
- Warning and reporting;
- Physical protection;
- Hazard management.

The military regulation Vševojsk-2-1 includes measurements of CBRN Defence and TIM release into the Force Protection. It notes that CBRN Defence is a complex of organizational and technical measurements and activities which have the aim to weak an influence and remove effects of Weapons of Mass Destruction and TIM release. With application of these actions to contribute to keeping of a combat capability of troops. This aim is achieved by the consequential realization of general measurements of protection and at the same time of special measurements of CBRN Defence. Within specification of special tasks of CBRN Defence it links on the article 53 of military regulation Všeob-Ř-1. This article has been replaced by a snip 2 from the first supplementary to this regulation. In this snip is noted that measurements of CBRN defence contents:

- detection, identification and finding of consequences WMD usage and TIM release;
- warning and reporting of troops;
- physical protection against effects of WMD and TIM;
- hazard management WMD employment and TIM release;
- Medical countermeasures.

In subsequent text of military regulation Vševojsk-2-1 there are set special measurements of CBRN Defence in this way:

- detection, identification and finding of consequences WMD usage and TIM release (radiation and chemical accidents);
- warning and reporting of troops about nuclear attacks, chemical attacks biological weapon employment, TIM release, CBRN situation and warning against their effects;
- physical protection against effects of WMD and TIM;
- prevention and hazard management WMD employment and TIM release;

- Medical countermeasures of CBRN Defence.

The Pub-31-10-01 notes that CBRN Defence introduces the complex of organizational and technical measurements and activities which have the aim to weak an influence and remove effects of Weapons of Mass Destruction and TIM release. With application of these actions to contribute to keeping of a combat capability of brigade formations (formations and units). This aim is achieved by the consequential realization of general measurements of protection and at the same time of special measurements of CBRN Defence.

From mentioned definitions follows that CCs fulfils tasks of both CS and CBRN Defence. These ones blend together and they repeat themselves. A mutual relationship of CS and CBRN Defence measurements is based on different involvement of the CAF Chemical Corps. Moreover, it is evident that valid definitions of CS and CBRN Defence do not suit and for purposes of implementation of AJP-3-14 they will have to be re-elaborated.

### Force Protection, Combat Service Support, CBRN Defence and CS

From definition determination of terms CS and CBRN Defence comes out that single measurements are mutually combined thus that a border of the content between single measurements is not unique. As an example it is possible to note CBRN monitoring (CS measurement) and detection, identification and finding of consequences of WMD employment, radiating and chemical accidents. Within comparison of aims, methods and even usage of single both CS and CBRN Defence measurements can be mutually found differences in fulfillment of specific and the most complicated tasks. Furthermore, in definition of CBRN Defence the term of "monitoring" is revealed. This term repeat itself in definition of CS. This multivalent determination of this term brings into the content of fulfilled measurements a confusion and misunderstanding.

Specific and the most complicated tasks of CS and a share on force protection (mainly CBRN Defence) fulfils CCs units. Measurements of CS completely deal with questions concerning radioactive and chemical contamination. It also takes part on solution of question of biological contamination mainly by the non-specific (general) survey, samplings, biological contamination areas forecast, decontamination, people and military material disinfection.

Considering what in current time in NATO documents is introduced the term of CBRN Defence, which can be translated into the Czech language in the same way. This access enables unique understanding of concerning problems.

In accordance with current inner CAF documents it is valid that part of forces is detached in favour of IRS. From that reason definition of CCs would be completed in a consequent way: "CCs is the kind of troops of CAF. It fulfils specific and the most complicated tasks of CBRN Defence and it participates on fulfillment of tasks within IRS in a case of the Czech Republic exposure. It is formed by a brigade level formation, formations of CBRN Defence, units of CBRN Defence, units of survey, decontamination units and others. In operations in the framework of IRS on the Czech Republic territory it fulfils tasks following from concluded agreements between Ministry of Defence and Ministry of Interior.

Potential tasks fulfilled by CCs in favor of IRS on the Czech Republic territory and in the framework of non-combat operations in foreign countries would be specified like this:

- Detection, identification and CBRN situation monitoring;
- Recovery (extraction) of personnel;
- Emergency medical aid;
- Decontamination of personnel, wounded personnel and vehicles and so on;
- Maintenance of IRS parts (water supply, changing of personnel and so on).

The other possible tasks which would be fulfilled in the new conception of CBRN Defence is possible to specify measurements connected with treatment of water in favour of a decontamination site support even in cooperation with other parts of CAF and IRS [5].

### Challenges for Realization of Combined Measurements into the Form of CBRN Defence

For successful finalization of the process of combination of measurements of current CBRN Defence and chemical support into the final form it is necessary to fulfill a lot of tasks. Among the most important belong [6]:

- to consider a rate of impacts of combined measurements into military rules and publications valid in the CAF;
- to specify the final form of the new concept and to suggest the possibility of its application in a realization phase;
- to publish new approaches to realization of new concept to subjected problems in the form of articles within conferences, seminars and in scientific articles
- on both operational and tactical level to conduct a familiarization and information campaign which has to be performed by professional on the particular problems;
- to elaborate a proposal of the outline of the military rule. This outline should be consider at first and after that completed;
- to perform a confrontation of military rules and publications valid in other NATO countries with the reality proposed in the CAF. The relevant controversies have to be removed.

### Conclusion

Considering what most NATO states tasks of CS do not realize (they do not know definition of CS) so they are included in problems of CBRN Defence. On the Czech site arrives problems within international negotiation and solutions of related questions among CAF members in the NATO framework in the area of CBRN Defence. The whole terminology, documents are meanwhile in intentions of Allied doctrines and standards of NATO ant are not implemented into CAF regulations and publications. From that reason it is simpler to conform to NATO standards. As an example it is possible to note the Slovak Armed Forces which fully accepted NATO doctrines in the area of CBRN Defence practically without changes. A similar step would ask of performance of necessary changes into principle CAF documents.

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