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KEY ELEMENTS OF STANDARDS OF PROFICIENCY FOR CBRN DEFENCE IN MILITARY OFFICERS' EDUCATION

Abstract

According to NATO CBRN defence concept the terrorism, global in scope and lethal in results, and the proliferation of weapons of mass destruction are likely to be the principal threats to the Alliance over the next 10 to 15 years.¹ During the preparation of troops as a possible theatre, CBRN environment should be taken into consideration. Cadets must be prepared to survive CBRN effects and later maintain combat activities. The author of the article introduces the general stand-points of planning of CBRN defence, the characteristics of intelligence preparation of the battlefield and he points out the need of developing CBRN training. [1]

A NATO ABV védelmi koncepciója a globális kiterjedésű, halálos kimenetelű terrorista cselekményeket, valamint a tömegpusztító fegyverek proliferációját jelölte meg Szövetséget meghatározóan fenyegető tényezőként a következő 10-15 évben. A fegyveres erők felkészítése során számításba kell venni továbbra is a fegyveres küzdelem egyik lehetséges színtereként az ABV környezetet. A tisztjelölteket úgy kell felkészíteni, hogy a harctevékenységet folytatni tudják ABV körülmények között is. Ennek egyik feltétele egy olyan jártasság kialakítása, amely a katonát képessé teszi először is túlélni az ABV hatásokat, illetve folytatni a tevékenységet. A szerző a cikkben bemutatja az ABV védelem tervezésének fő szempontjait, a hadszíntér felderítő előkészítésének sajátosságait és rámutat az ABV védelmi felkészítés fejlesztésének szükségességére.

Keywords: *CBRN environment, CBRN defence, CBRN assessment, CBRN training ~ ABV környezet, ABV védelem, ABV helyzetértékelés, ABV felkészítés*

¹ Comprehensive NATO Chemical, Biological, Radiological, Nuclear (CBRN) Defence Concept, 10. jan 10., NATO Headquarters, Supreme Allied Commander Transformation, Norfolk, Virginia

MODIFICATION EFFECTS OF THEATRE CBRN ENVIRONMENT TO MILITARY OPERATIONS

As Hungary joined the NATO, tasks of the Hungarian Defence Forces are widened. Hungarian soldiers nowadays regularly serve abroad in accordance to our present international military responsibilities.

Determinant areas to the security of Hungary (neighbouring states) indicate stability, but it doesn't represent regions, conflict sources, where only the presence of NATO forces are the guarantee of peace, and where Hungarian Defence Forces fulfil their peace support operations. Even in peace support operations possible CBRN² affects to the troops can not be neglected. In case of escalation of the crisis, operations are getting close to war situations and these changes have modification effects also to the support tasks of CBRN defence. [2]

National Security Strategy of Hungary (NSS) contains that maintaining of international peace and security, prevention and management of possible conflicts are key interests to our country's security. The NSS determines the main challenges to Hungary's security and its international environment such as terrorism and proliferation of weapons of mass destruction (WMD). The combination of these two phenomena is a primary threat to military operations especially in conflict areas where presence of CBRN devices or materials are high risk due to possible possession or production of CBRN weapons.

Restructuring of Hungarian Defence Forces and changing their responsibilities triggered the change of military technology and equipment, and this process is still going on. This, besides many other factors made the modification of training elements necessary in BSc and MSc academic military educations.

Complexity of CBRN operational environment makes the intelligence preparation of battlefield, the planning and execution of operations difficult, because besides certain elements of CBRN weapons it is necessary to take the possibility of their simultaneous or successive engagement into consideration.

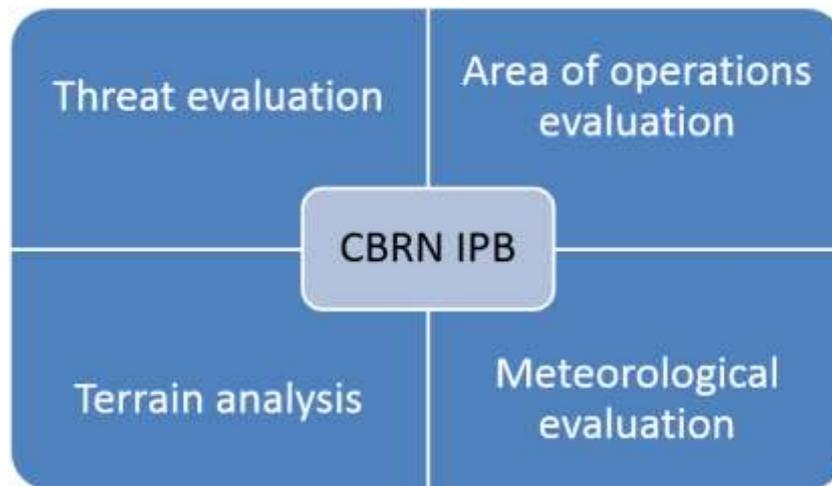
CBRN situation in operational theatre due to use of CBRN weapons can be characterised with contaminated terrain, fires, obstacles, damages, contaminated air with radioactive products, and these make carrying operations, development of tactical success and work of combat support troops to eliminate strike consequences difficult.

In case of radiological devices, security experts specify as the most common tool of possible terrorist actions the Improvised Radiological Dispersal Device (IRDD) as a threat. Consequences have collateral effects to military operations. Operations can suffer delay due to introduction and maintain of safety precautions, radiological contamination reconnaissance and decontamination of essential strategic or tactical military installation, e.g. logistic buildings, seaports or transport, support and evacuation routes. Tactical consequences can be even worse. In territories effected by radiological hazard, forces can loss part of their capabilities in their area of operations.

Besides the use of biological warfare or biological weapons on the battlefield, a source of emergency can be a dangerous biological substance in the environment as a result of a strike or collateral damage of installations dealing with production or storage of infectious materials.

According to experts, certain groups of the international terrorist network can have the ability and intention to use of biological weapons. Experiences from worldwide epidemic of SARS and influenza can warn us for the speed that characterises the spread of these highly infectious pathogens. [3]

² CBRN=Chemical, Biological, Radiological and Nuclear



1. Figure. The main components of the IPB process (Edited by Berek, according to HDF CBRN defence doctrine)

Chemical environment consists of both military and civilian hazard sources. Besides the threat of chemical warfare, it is essential to take into consideration other chemical hazards emanating from collateral damages of chemical installations containing hazardous materials caused by use of conventional weapons and from Toxic Industrial Material release other than attack scenarios. Chemical release in the environment can affect military operations, no matter it was intentional or accidental.

So CBRN environment of military operations determines that future operations must be planned and lead with the risk of usage of CBRN weapons against our involved forces.

In modern warfare the manoeuvrability is one of the key aspects. Primary objectives of manoeuvres are to reach optimal conditions for our strike and fire and to protect our forces against the enemy's strike and fire. According to challenges of modern warfare optimal conditions can be reached by opened wings, wide gaps and with high mobility forces to make such manoeuvres during combat that can guarantee development of our tactical success [4]

Besides the caused damages use of CBRN weapons causes limited manoeuvrability, this way directly narrowing the theatre commander's possibilities, so information about CBRN situation plays a key role in commander's tactical evaluation.

STANDARDS OF PROFICIENCY FOR CBRN DEFENCE FOR THE COMMANDERS OF THE FUTURE

Standards of proficiency for CBRN defence by STANAG 2150 contains that commanders must have wider knowledge on CBRN defence than their subordinates have. Commander must know the dangers emanating from CBRN strikes or chemical, biological and radiological contaminations caused by TIM release other than attack scenarios to be able to plan and execute operations in contaminated environment caused by CBRN strikes or dangerous industrial installations. [5]

Commander can fulfil designated tasks and responsibilities only with the involvement of his staff's senior officers, their staffs and subordinated sections into specialised activities. Picking up "reliability" from the requirements of decision making methods that based on authenticity of processed information, accuracy of developed methods, professional acceptability and realisability, it is statable, that professional preparedness of the staff, secure information and standards of proficiency for CBRN defence of staff personnel are the keys to reliability. During operations, leading of intelligence evaluation of the battlefield, during planning battles and operations and in combat collecting and evaluating data concerning the enemy and its activities,

report the conclusions to the commander have a key importance, so has the operational division (G2) on the information about possible use of CBRN weapons.

Pre-planned decisions made during the first operation and combat activities because of its characteristics can contain broad analysis and there is a possibility to verify data reliability. In contrary, decisions during combat situations should be made within a limited time, which makes the planning more difficult, and in addition, parallel to the decision making process leading of the current activities is another responsibility at the same time. In immediate reaction commander makes individual decisions based on his own experiences and his former decisions from planning phase, and as verbal orders, sends them to the subordinates without delay. [6]

In order to make executable decisions the competence and professional preparedness of the commander, appropriate knowledge of subordinates' abilities and potentialities are especially important. Also very important areas of knowledge: effects of CBRN weapons, subordinates' capabilities and standards of proficiency for CBRN defence, e.t.c.



2. Figure. Operation affecting factors (created by Berek)

KEY ELEMENTS IN CREATION OF STANDARDS OF PROFICIENCY FOR CBRN DEFENCE

The following main components of the above mentioned standards of proficiency for CBRN defence should be built into the military officers' education. According to the requirements Commanders and their Staffs should be able to: [7]

- *know the CBRN defence organization and the available equipment*: During military operations, while executing orders, the commander should know the CBRN capabilities of his subordinate forces, so he should have the confidence in his troops to be able to survive a CBRN attack, fulfil their tasks in CBRN environment or finish their ongoing operation. If the commander didn't possess the above mentioned information, he wouldn't be able to clearly assess and evaluate combat capabilities of his own forces and it could have fatal consequences to the mission's success.
- *determine the capabilities of CBRN defence forces under their command and employ those forces in accordance with appropriate doctrinal procedures*: In order to collect information from the operational theatre concerning CBRN situation the common contribution of organisational, non-professional and subordinated supporting CBRN subunits are all necessary. But the troops and equipment available for the commander are limited, so differentiation of the operational supporting CBRN reconnaissance

elements is necessary, and in order to do this, the commander should determine their capabilities. For knowing capabilities of subordinate forces, commander should know the subunits' CBRN reconnaissance and sampling equipment, their operational policies and regulations, capabilities and limitations.

- *assess and implement CBRN defence training in exercises as appropriate:* The commander should know the different requirements for standards of proficiency for CBRN defence for his subordinated officers and all the personnel. The commander is personally and fully responsible for:
 - appropriate preparation of his troops,
 - their efficient use,
 - successful and timely execution of designated combat tasks and
 - the morale of his personnel. [8]
- *evaluate the effects of CBRN incidents and/or CBRN environment on their units:* CBRN evaluation based on situation assessment is undoubtedly a part of commander's responsibilities. CBRN evaluation can be supported by reports from CBRN warning and reporting system and by the forecasts of superior theatre CBRN area control centre, but there can be special situations, where the commander can use only the data of non-professional (secondary trained) CBRN observation subunits of his subordinated troops to make his decision. CBRN safety precautions should be ordered even in the absence of computer based data processing and evaluation.
- *take CBRN counter-measures depending on the situation and mission:* Efficiency and successfulness of activities in operations are greatly affected, besides many other things by the CBRN threat level. In order to protect his task force the commander should order the appropriate MOPP (Mission Oriented Protective Posture) level for the soldiers and enter the rules of protection, stand by of the built-in collective protection (COLPRO) facilities and their directions for use. Preliminary assessment of the effects of entered CBRN protection policies is very important in order to know their consequences for combat activities.
- *plan operations counting in the CBRN threat and the CBRN defence capabilities of subunits:* The commander should be able to plan operations in CBRN environment and hold the chemical, radiological and biological exposition levels at the minimum with the use of ALARA (as low as reasonably achievable) safety principle, taking the threat level and subunits' different operational capabilities into account. [9]
- *understand and estimate the debilitating effects of wearing CBRN IPE in operations for prolonged periods and understand how can these effects be mitigated:* The commander should be able to estimate impediment factors, when his task force's manoeuvrability degrades on contaminated battlefield as soldiers are wearing their CBRN IPE (individual protective equipment). In connection with this, it is a requirement for the commander to be able to estimate the consequences for soldiers wearing CBRN IPE for a longer period of time. He should know the countermeasures to ease the reductive effects of IPE for combat capabilities and personal comfort.
- *understand the principles of CBRN risk management philosophy:* It is essential to make CBRN risk and vulnerability evaluation as parts of the operation risk assessment. The commander should find a balance between operational successes and expected losses. He should know the consequences of taking CBRN risks up, and sometimes success or failure of his decision is a near thing. For example, he should consider the situation, when soldiers wear CBRN IPE for such a long time, when their combat capabilities are already degraded so drastically that it threatens their lives. He should decide to decrease the level of protection in a difficult situation, and if he was wrong, he would expose his soldiers to harmful effects of CBRN environment.

- *understand the capability of medical prophylactic countermeasures and the operational, ethical and legal impact of their use:* The commander has a designated responsibility in case of establishing passive countermeasures before a CBRN event, e.g. distribution and use of prophylactic materials among his soldiers. The commander's decision capability is very important this case. The management of the above mentioned problem can be done with the help of adequate CBRN situation survey and evaluation.

CONCLUSIONS

Because of the new challenges to Hungarian Defence Forces together with the changes of military equipment modifications became necessary in combat methods and other operational activities and adequate training programmes for these new procedures. This process is still going on, new tactical methods and procedures became parts of the present operational protocols and regulations, and they have to be introduced into the education.

Task forces can have the most modern CBRN protection equipment in vein, if the system of education doesn't contain the necessary elements to train the commanders how to use them in order to execute combat tasks in CBRN environment.

Training and education must follow the changes of military theories, because under the variable circumstances of a combat environment an efficient force can be only a well prepared army for the challenges of the present and a preparing army for the challenges of the future. And I have no doubt that every forint for the education, equipment and weaponry of the officer cadets is wasted money if we can not protect our combat force in order to survive. [10]

In order to do this, we must lay special emphasis on CBRN training and education, especially for the officers of the future.

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References

- [1] Berek Tamás: Establishment problems of a NBC Training Ground, Hadmérnök 2007/3., http://www.hadmernok.hu/archivum/2007/3/2007_3_berek.pdf ;
- [2] Juhász László: Az ABV felderítés béke és háborús feladatainak összehangolása a hazai gyakorlat és a NATO elvek alapján, PhD értekezés – Budapest, ZMNE;
- [3] Csepregi P., Halász L., Huszár A., Révai R.: Biológiai kockázatokkal és veszéllyel jellemezhető anyagok detektálása valós idejű módszerekkel a jelenlegi technológiák áttekintése és hatékonyságuk elemzése az azonosítás és fertőződés valószínűségének szempontjából, Polgári Védelmi Szemle <http://www.mpvsz.hu/letoltes/pvszemle2010/pv2010.pdf>
- [4] Berek Lajos: Manőverek a korszerű harcban Hadmérnök, 2006/1. www.hadmernok.hu/archivum/2006/1/2006_1_berek.html
- [5] ABV védelmi jártasság NATO szabvány szerinti követelményei, 2004., MH Szárazföldi Parancsnokság;
- [6] Hajdú I. - Somorác A. - Szabó Gy. - Balogh Z. - Bíró B. - Fodor J. - Téglási J. - Horváth A. - Magyar I.: Törzsszolgálat, tankönyv, ZMNE, Budapest, 1999.;

- [7] AJP-3.8 (A) Allied Joint Doctrine for CBRN defence, 2012.;
- [8] Hajdú I. - Somorácz A. - Szabó Gy. - Balogh Z. - Bíró B. - Fodor J. - Téglási J. - Horváth A. - Magyar I.: Törzsszolgálat, tankönyv, ZMNE, Budapest, 1999.;
- [9] Berek Tamás: A parancsnokok felkészítésének kihívásai az ABV jártasság tükrében, in: Tavaszi Szél Konferencia kiadvány, Budapest, 2007. ISBN 978-963-87569-0-9, 441.p.;
- [10] Berek Tamás: Fight capability in NBC circumstances and the military training: 5th International Symposium on Defence Technology, 21-22. Apr 2008 Budapest, Hungary.