József Padányi
László Földi

DOI:10.33179/BSV.99.SVI.11.CMC.18.2.3

IZKUŠNJE MADŽARSKIH OBRAMBNIH SIL, PRIDOBLJENE PRI RAZMESTITVI INŽENIRSKIH OVIR MED VSEEVROPSKO MIGRANTSKO KRIZO LETA 2015

LESSONS LEARNED FOR THE HUNGARIAN DEFENCE FORCES FROM THE DEPLOYMENT OF ENGINEER OBSTACLES DURING THE 2015 EUROPE-WIDE MASS-MIGRATION EMERGENCY

Povzetek Leta 2015 se je v Evropo zateklo izjemno veliko število beguncev, kar se ni zgodilo še nikoli prej. Da bi preprečila nenadzorovan in nezakonit prestop državne meje, je Madžarska začela postavljati ograjo vzdolž svoje južne meje.
V članku so najprej opisane vrste vojaških inženirskih ovir in nato izbruh dogodkov, povezanih z migracijami leta 2015 na Madžarskem. Predstavljeni so »krizne razmere«, ki so jih povzročile množične migracije in jih je razglasila vlada, ter sodelovanje madžarskih oboroženih sil pri njihovem reševanju.
Povzete so do zdaj opravljene vojaške naloge ter z njimi povezane težave in izkušnje. Članek se konča z nekaj komentarji in predlogi avtorjev.

Ključne besede Inženirske ovire, begunci, migracije, madžarske obrambne sile.

Abstract A serious mass of refugees, which has never been seen before, arrived to Europe In 2015. Hungary started to build fences along its southern borders to stop uncontrolled and illegal border crossings.
In our paper, we start with the description of the types of military engineering barriers, then we describe the escalation of the 2015 migration events in Hungary. We present the "crisis situation caused by mass migration" announced by the Government and the involvement of the Hungarian Defence Forces.
We summarize the related military tasks completed so far and the emanated problems and experiences. In the end of our paper we make some comments and proposals.

Key words ***Engineering barriers, refugees, migration, Hungarian Defence Forces.***

Introduction

One of the most important categories of military engineering barriers is the so called non-explosive obstacle where you can find the fences among others. Soldiers of the Hungarian Defence Forces built a lot of them, combined with other defensive elements in the 1990's during the Southern Slavic conflict to protect borders of Hungary. These obstacles are suitable to block or limit movements, to direct movements of crowds or to reinforce protection of camps or depots. Defence wirings, the so called "concertinas" are primarily made for close of important directions or territories applied in combination with other defensive tools. They are widely used on routes to military installations, at the gates, along the fences and also in the inner parts of military camps. Concertinas can be installed on the top of existing fences or they can be used individually. They can be built in several forms or patterns, in rows or on top of each other.

Fences are brought into the limelight because they became one of the most considerable elements for handling of masses of migrants along the borders. In the followings we present various types of fences and other obstacles, practice and experiences of their possible applications from professional point of view, especially their utilization for protection against uncontrolled flow of masses of people. The present situation at Hungary's Southern borders gives special actuality to our research where fences play a key role in protection against the crisis.

Someone may ask why the use of the Hungarian military was necessary for the task of building fences along the border of our country. Decision makers assessed the situation and the possibilities and chose such an option that already proved its suitability a lot of times. Emergency situations are quite common in Hungary, when quickness and professionalism are the key factors to solve the problem by the use of specific preparedness together with special equipment, such as fighting against floods, extreme snowfall or industrial disasters like "Red Sludge Catastrophe" was back in 2010. In our country only the military is suitable for this, because it is a unique human and technical resource, which is capable to deploy a mass of skilled experts with special equipment in a very short time with complete logistic an communication systems. Authors of this paper are already published about these military activities in details (Padányi et al., 2015).

Participation of military power such as the Hungarian Defence Forces is not extraordinary in building and maintenance of fences and other border obstacles. It is one of the major and undisputable tasks of military engineering units during wartime or peace support operations. And this was not the only task dedicated to military forces during mass migration emergencies. Slovenia made it possible for its military to assist the police driving refugees along its border (www.dehir.hu).

Croatia (http://kitekinto.hu), Serbia (www.portfolio.hu), Bulgaria (www.ma.hu), Greece (www.ekathimerini.com), Italy (444.hu) and the Czech Republic (www.lokal.hu) also use their military in handling the mass migration emergency.

Tasks of the Hungarian Defence Forces in handling mass migration are limited to the deployment and maintenance of border fences and common patrolling together with the police forces. Building and maintenance of fences along the borders mean billions of costs, which exceed 6 billion HUF only at the Serbian-Hungarian border.

1 MILITARY ENGINEERING BARRIERS

Wirings in military practice are the major group of non-explosive obstacles used against enemy infantry. There are two types of them: fix (stationary) and deployable (mobile).

Stationary wirings, as they name shows are deployed to certain places or routes to make obstacles. Their main subgroups are wire fences and wire networks. The most commonly used type of obstacles is the wire fence (simple or multiplied) that can be built easily and quickly in comparison with the available resources.

Most important types of deployable wirings are: Spanish rider (or "Cheval de fries"), hedgehog barrier, wire rolls (or rapidly deployable concertinas) and wire networks. These barriers are easily removable, can be used multiple times and redeployable. They can be made previously or on site, sometimes from improvised materials in case of need. They are perfect tools for quick and reliable closing of the desired territories, routes or installations (Kovács, 2012).

Properties of wires used for certain types of barriers basically determine the kind of obstacle that can be formed from them and the task that it will be suitable for. Wires used against enemy infantry are mainly made of steel with average tearing strength and smaller diameter (1.5-3.5 mm), while types that are used against vehicles have much higher tearing strength and diameter (3.5-5.5 mm). All the wires can be made of steel or sometimes copper (very rarely) with smooth surface or some kind of piercing or cutting edge, applied weaved or expanded separately.

Fences used as military engineering barriers vary in a wide range concerning their height, but mostly in the range of 1.8-4.0 metres (but sometimes we can meet a height of 7 metres, too). The fences' definite advantage is that to cross them is a time-consuming task (especially in case of their application in several rows together with other obstacle elements), so they can provide a comprehensive protection against foot-soldiers and foot-passengers. Meanwhile, their disadvantages are the reasonable time, manpower and materials necessary for their planting, in addition with the difficulties caused by harsh terrain. However, combined with wire rolls, electric locks and signal devices they can provide effective holding and deflection power.

Wire rolls are very useful against persons and vehicles depending on the thickness and quality of the wire. One of their most important property, that they are made of steel wires with different cutting edges (see Picture 1, p. 109).

Wire rolls are the most commonly used wire-based obstacles. They can be made in different sizes concerning their diameter (20-150 cm) and length (10-30 m), and can be used in several forms: in one or in multiple rows, one or multilevel forms, as individual obstacles or as reinforce elements to other engineering barriers (see Picure 2, p. 109).

Some deployment forms can be seen in Picture 3 (p. 110), where wire rolls are used individually or in combination with fences.

Possible packing of wire rolls, in other words formation of a multi-level engineering obstacle depends on the stability of the instrument that can be improved by vertical reinforcement. This system is well applicable in rural areas for the protection of friendly forces or to close roads, squares, buildings.

In addition to make movements difficult, an important task of the use of non-explosive engineering obstacles during peace support operations is the definitive demonstration of the purpose. While in combat operations the obstacles, barriers on the battlefield are often camouflaged, in peace support operations their presence is greatly emphasized. In general, the elements are placed on the surface easily perceptible to the naked eye. Lifetime of deployed wires can be increased with the prevention of problems emanating from undergrowth: the elements are often placed onto gravel layer over geotextile rug (Kovács, 2004).

Effectivity of these demonstrated barriers can be further improved whether they are completed with cameras and movement sensors, or patrols to be ordered along them. In this case they provide reliable closing, their undetected utilization is almost impossible. They are used in many areas all over the world.

2 FENCES ALONG THE BORDERS OF HUNGARY

In the followings, we would like to present the formation of the military engineering barrier along the Southern borders of Hungary in 2015. Its official name is "Temporary security border closing for border guarding" (Act 213/2015). In July 2015, the Hungarian Parliament modified the law concerning state borders and gave public utility right to the Government in the outer Schengen border areas, in 10 metres from the border line. The Government rearranged 6.6 billion Forints, so the construction works could be started.

Building of the fence at the border started on 13th July, at Mórahalom. First, a 150 m pilot stage was built, than based upon the experiences from this, the construction of the elements of the border closing started at the full length of the Serbian-Hungarian border. The fence has been built with columns extruded into the ground in 1 m depth, connected with wire network to each other, and two additional layers of wire rolls: one on the top of the fence and the other at the bottom of it. The only exception is the most difficult terrain in 30-40 km, where only wire rolls were used. There are

information tables along the fence indicating the nearest border crossings and stating that illegal border crossing is considered as a crime in Hungary.

The full length of the fence has been built by the soldiers of the Hungarian Defence Forces, on 10-12 sites and with several hundreds of persons at a time. The original deadline of the construction was 30th November, but the Prime Minister modified it to 31st August at the end of July. To speed up the works military subunits were reinforced with additional 100-250 public workers and 6 pile-drivers were also used. Because of the modified deadline a lighter version of the primarily determined type was built, the so-called rapidly deployable wired fence, which were 3 lines of wired rolls expanded between steel pales on top of each other with a total height of 1.5-2 metres (see Picture 4, p. 110).

The newly appointed Minister of Defence, István Simicskó announced on 11th September, that 3800 soldiers built 10 kilometres of fence every day. On 14th September, the last free passage was closed with the use of a railway wagon reinforced with cutting edge wires at the Szeged-Horgos stage. With this step, closing of the Serbian-Hungarian "green" border became complete.

On 15th September, the Minister of Foreign Affairs announced, that the Government decided to prepare the construction of a fence along the Romanian-Hungarian border as well. So the engineering barrier is decided to be extended from the Romanian-Serbian-Hungarian border point to the River Maros and further in some kilometres. Three days later, on 18th September the Prime Minister announced, that an engineering border closing is to be built along the Croatian-Hungarian border in 41 kilometres. The construction was started immediately.

On 21st September Governmental Act 1665/2015 came out ordering the construction of the security border closing along the outer Schengen borders of Hungary in the counties affected by the crisis situation caused by mass migration. On 15th October it was officially announced that the engineering border closing was ready on the full length of the Croatian-Hungarian border.

On 16th October the same system came into force along the Croatian-Hungarian border, as it was already created one month earlier along the Serbian-Hungarian border. The "green" border was totally closed with combined use of physical devices and manpower, and entering into the territory of Hungary only at the official border crossing points became possible.

The Governmental Act 1665/2015 defines the "temporary security border closing" and its territory, but it does not describe its proper form, only says, that "an installation built and deployed for the protection of the state border's order in property of the state". This way it gives some flexibility to the constructors and the developers. It is very important because of the requirements derived from different terrains along the border. A lot of water-courses cross the border, roads and railways also can be found

at the frontier, too. These points sometimes need special solutions, just remember the "reinforced wagon" used for the closure of the railway line as the last element of the border defence along the Serbian-Hungarian border.

The one and only purpose of the fence along the Croatian-Hungarian and Serbian-Hungarian borders is the restraint of the mass migration. This engineering barrier with the closure of previously open passages directs migrants towards the designated border crossing points, where the guarded and protected gates decrease security risk. For this purpose, this barrier is clearly visible, with gates and information signs written in several languages. It is suitable for safe deflection of people making the terms for controlled motions.

Deployment of the engineering obstacle, especially along the border needs specific attention. On one hand, the respect of the border is important. On the other hand the configuration of the proper trace is substantial. On harsh terrain, dense vegetation and changing ground properties are retarding the progress. Extreme weather (hot, rain, dust, cold or snow) can also detain the construction. Extreme press interest, frequent visits of the superiors or lack of necessary materials and assets can also be problems.

Concerning the efficient organization of this type of "linear" construction, one of the most important points is the determination of the "weakest link". You can have unlimited manpower in vein in the absence of the necessary machines and materials, and vice versa. Effectiveness can be raised with aligned working on many points at a time.

Other important factor that must be taken into consideration is the professionalism of the workers. And in most cases the problem is not the knowledge of machine-operators, but the unskilled labour. As the former experts and experiences left the Army years before, soldiers had to learn the fence construction skills again. In case of a disciplined organization like the military, it is not a serious problem, but the proper drill of the public workers is not an easy task. It means risk both for preparation and for safe and disciplined work.

The installation for the border protection was completed in time (see Picture 5, p. 111). In first stage, assessment and designation of the trace were made, than the settlement of the terrain, laying of wire rolls and finally building and signing of the fence. The task of the military is not finished, soldiers keep taking part in guarding and patrolling as well. This is just as important as the construction was. Participation means serious surplus work for the involved military units and personnel, so the reservist system and use of voluntary reservists can have great importance (Simicskó, 2011).

Because of the rapid construction some problems have remained unsolved, such as proper preparation of the ground along the fence so we can count with the introduction of some undergrowth and their consequences during the forthcoming months.

By the data of Frontex[1] there are 1.5 million migrants arrived to Europe in 2015, while 391 thousands of them vent through the territory of Hungary, coming from 104 different countries (frontex.europa.eu). 177 thousands of "Request for a Refugee Profile" were passed to the Hungarian authorities during last year, 508 of them was accepted, a lot of them was refused, but majority of the migrants were disappeared before the decision of the immigration bureau.

By the data of the Hungarian Police the number of illegal migrants greatly decreased after the completion of border fences, from 4-8 thousands to dozens, daily. From this time migrants preferred to choose Croatia and Slovenia to reach Austria and further Germany (www.police.hu).

This year already 18 thousands of refugee requests were passed till June, 4300 of them in the dedicated transit zones. There are 100-120 daily attempt to illegally crossing the borders of Hungary, so the continuous pressure is still exists (www.kormany.hu).

Conclusion

We can draw several lessons from the completed tasks in handling the mass migration emergency. The authors of this paper wanted to focus on the professional military engineering aspects, political and economical lessons are not our responsibilities. During the building of fences on our borders it was proved, that a work with these extents can be carried out only by the use of a well organized and equipped force with excellent logistic capabilities. Hungarian Defence Forces could meet this challenge with good capability assessment, task prioritization and deployment of appropriate forces and equipment.

Building fences is an accepted way for closing borders, obstruction of illegal migration, direction of masses of people and enhancing state security all over the world. But fences individually are useless without continuous supervision using technical and manpower assets. Only these can guarantee that fences will fulfil their task that they were built for. Another important issue, while the time of their cessation cannot be seen, their proper and responsible maintenance is also necessary in addition to the previously summarized tasks. Our prior experiences from peace support operations show that even one year without maintenance can cause serious damages and the effectiveness of the fences can drastically decrease.

One of the most important conclusions is that fences along the borders could reach the goal they had been built for. The migration pressure on our borders significantly decreased, which can be clearly seen from the statistical numbers. As the number of illegal migrants decreases, the feeling of safeness increases among our citizens.

[1] *Frontex: Management of Operational Cooperation at the External Borders of the Member States of the European Union (EU agency)*

However we know that fences are guarding the borders on several areas of the world for decades, this can not be a long term solution in Central Europe. The mass migration emergency problem has to be solved all along the borders of the European Union in a peaceful manner. The complete solution can come only with elimination of the reasons of mass migration in Africa and the Middle East. The efforts of the European countries should be focused on peaceful assistance to the developing countries in the crisis area to stabilize their governments to provide acceptable living standards to their people.

Bibliography

1. *Frayer, J. L., 2015. The Fences Where Spain And Africa Meet,10. March 2016.*
2. *Governmental Act, HUNGARY, 213/2015. (31 July) for modification of 211/2015. (23 July) Governmental Act for protection of workers involved into the construction of the temporary security border closing for border guarding and compensation because of the state expropriation.*
3. *Kovács, Z., 2004. A műszaki zárak alkalmazási lehetőségei a nem háborús katonai műveletekben, Hadtudomány, 2004. 3-4. Budapest http://www.zmne.hu/kulso/mhtt/hadtudomany/2004/3_4/2004_3_4_7.html.*
4. *Kovács, Z. 2001. Műszaki zárak a békefenntartó műveletekben, http://193.224.76.2/downloads/konyvtar/digitgy/20012/eloadas/kovacsz.html.*
5. *Nenov, S., 2016. Bulgaria's fence to stop migrants on Turkey border nears completion, 12 March 2016.Nielsen, N., 2012.: Fortress Europe: a Greek wall close up, 09 March 2016.*
6. *Padányi, J., Földi, L., 2015. Tasks and Experiences of the Hungarian Defence Forces in Crisis Management. CONTEMPORARY MILITARY CHALLENGES/SODOBNI VOJASKI IZZIVI (ISSN: 1580-1993) 17. 1., pp. 29-46. http://www.slovenskavojska.si/fileadmin/slovenska_vojska/pdf/vojaski_izzivi/2015/svi_17_1.pdf.*
7. *Sarkadi, Z., 2016. Az olasz hadsereg kész beavatkozni Líbiában, http://444.hu/2016/03/03/az-olasz-hadsereg-kesz-beavatkozni-libiaban, 13 March 2016.*
8. *Simicskó, I., 2011. A tartalékos rendszer fejlesztésének kiemelt kérdései. Hadtudomány 2011, 4 p. 78.*

Slika 1: Žice z različnimi vrstami rezil
Vir: osebni arhiv avtorjev.

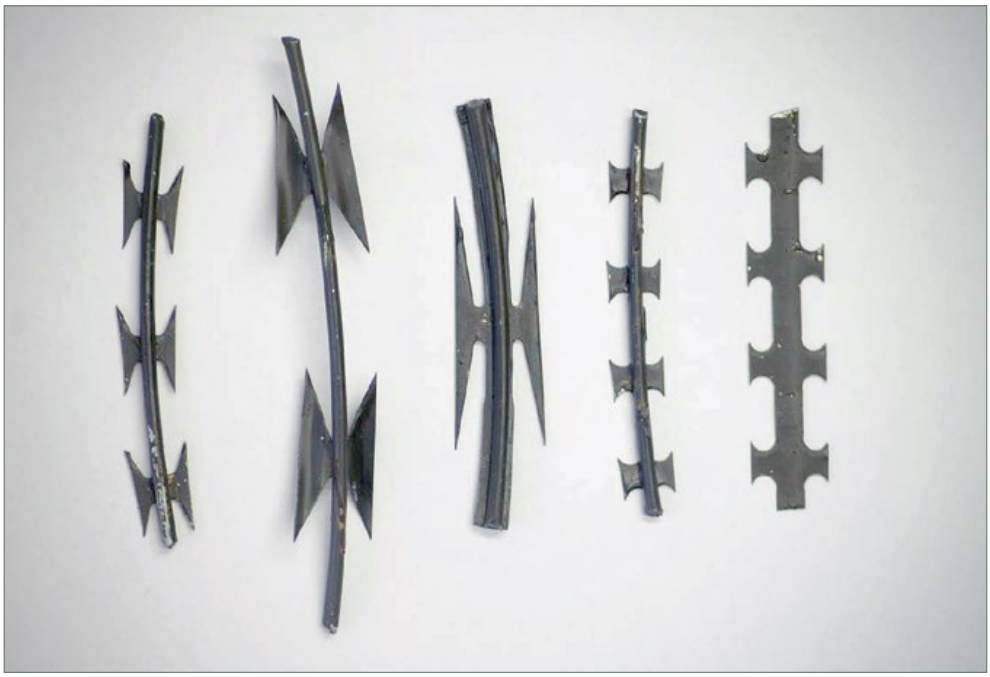


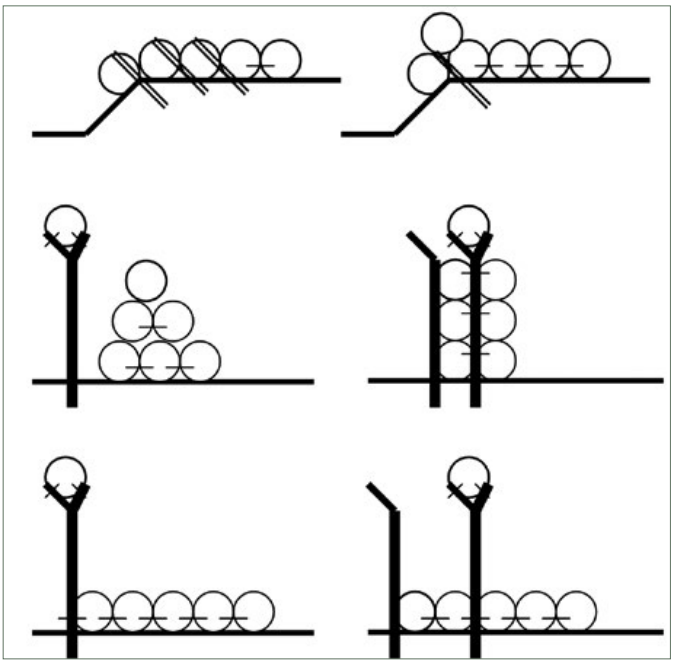
Figure 1: Wires with different types of cutting edges
Source: Photograph taken by the authors

Slika 2: Ograja, ki varuje vojaško bazo
Vir: osebni arhiv avtorjev.

Figure 2: Fence protecting a military camp
Source: Photograph taken by the authors

Slika 3: Različne vrste uporabe zvitkov žice
Vir: osebni arhiv avtorjev.

Figure 3: Different utilizations of wire rolls
Source: Photograph taken by the authors



Slika 4: Prvi primer začasne ograje
Vir: osebni arhiv avtorjev.

Figure 4: The first type of temporary fence
Source: Photograph taken by the authors

Slika 5: Ograja, kot je trenutno postavljena vzdolž meje
Vir: osebni arhiv avtorjev.

Figure 5: The presently existing fence along the border
Source: Photograph taken by the authors