Military Science Research Across the Carpathian Basin

Zoltán OROSZ

Military science has always been an important factor of scientific life, considering its relevance for current strategic stability and the possibly prosperous future of a country or a nation. The century long shaping of military technology and warfare was a process through which ancient military commanders’ strategic and tactical concepts were correspondingly reformed to adapt and exceed the rapidly changing characteristics and the continuously shaping environment. Strategic research is the basis for turning “unpredictable” and “world-shaking” into “understandable” and “prognostic”. This analysis aims to highlight the current institutional capacities of military science in the Carpathian-basin and present the guidelines and operational level of the ongoing strategic studies in the region, while demonstrating the importance of maintaining and supporting the relevant Hungarian military research purposes.

Keywords: military science, scientific research, military technology, strategic planning, research institutes, Carpathian-basin, Slovakia, Slovenia, Austria, Croatia, Serbia, Ukraine

Introduction

At all times, the depositary of a state’s sovereignty is its military force. A country that has a weak military capability is vulnerable to the will of other states. There are theories that preach the peaceful coexistence of people, but this kind of idealistic environment may only be maintained until the state’s resources meet the basic human needs. As we know, the increased demand for resources and a parallel process, climate change, has induced a number of armed conflicts currently, and is expected to do so in the near future as well. Quoting József Padányi: “More and more conflicts occur in the world for potable water, more and more people die violent death during the struggle for water resources. Until the millennium, the number of annually reported water conflicts has not reached the half-dozen or so, but in the last ten years, this number was repeatedly exceeded on annual basis”. [1: 283] The population growth of the third-world countries, [2] migration generated by the water and food shortages are factors that strongly influence the security situation of the states. [3][4]

Without specialized scientific research the army is unable to perform its function. This knowledge is essential in the field of either military theory, leadership theory or technical military knowledge. [5] Considering what changes the appearance of firearms or the proliferation of weapons of mass destruction has made in military history, much like the appearance of sociology and psychology in the application of psychological operations (PSYOPS). In pre-
vious times military research conclusions were frequently used by civilian researcher, these
days it seems that this process has reversed. Various fields of military science use civilian
research and integrate the results of the civil world to their specific arena.

Military science is typically the area, among different disciplines, which is a priority
national interest. In peacetime, it is typically somewhat overshadowed, but when there is a
need for national self-defence – or expansion – it moves to the forefront. The cyclical nature
of this process is indisputable. However, one should definitely pay attention to maintain an
appropriate level of scientific analysis capability also in times of peace, otherwise restoring
the potential in a more insecure period may be too late, and thus may even contribute to the
collapse of the nation as well.

The specificity of military science research compared to other non-governmental sci-
entific research are rooted in its partial publicity. [6] Insofar one’s own military research
results are fully shared with other nations the country could lose comparative advantage. It
is therefore a difficult situation for scientists in the field of research, to publish the results of
their area of competence without putting the opposing side in a position by making pieces of
information public.

In order to locate our country’s current military science research position and direction in
the international environment, it is our duty to contemplate other countries’ military science
research conditions. Considering Hungary’s population, the capabilities cannot be compared
to superpowers, since we do not have such economic potency as their assets invested in these
areas. The research results should rather be analysed in the surrounding geopolitical context.
That is why in this essay I aim to highlight the main military research centres across the
Carpathian Basin.

Slovakia

Military scientific research is continuous at several institutions across Slovakia. Among
them, one of the most important, the Slovak military academy, functions in the north of Slo-
vakia, at Liptovský Mikuláš. [7] The district boasts more than sixty years of military training.
After the establishment of the Slovak Republic, in 1993, the government created the Armed
Forces Academy of General Milan Rastislav Štefánik. [8] The institute was an open and
available university for a large audience, but the National Academy of Defence of Marshal
Andrej Hadik, founded at the same time [9] became the venue for special training and further
education. The two institutes merged simultaneously with the transformation of the ministry
of defence in 2004. Four years later, in 2008, the Slovak government decided to terminate
the Andrej Hadik National Defence Academy, and transferred its tasks to the Armed Forces
Academy of General Milan Rastislav Štefánik. The head of the institution is the rector, who
is appointed – in consonance with the proposal of the Minister of Defence – by the Slovakian
President. [8]

The ongoing research takes place at the Security and Defence Policy Department of the
Military Academy, founded on September 1, 2009. [10] In addition to the education of admit-
ted students, the department’s objective is to articulate and shape security policy and main-
tain the professional connections with other Slovakian and foreign academies. In addition,
 improvement of military training, as well as developing and implementing NATO and Slovak
military doctrines also play an important role. [11]
The current leader of the department is Vojtech Jurcák, apart from him, the department’s education and research unit consists of 11 people. [10] The International Security Policy Conference takes place every October in the academy, whose organizers include – inter alia – the Slovak Ministry of Defence and other Czech and Polish military academies, as well as the Slovak Police. [12]

In Slovakia, for the testing and development of military equipment and techniques, a specific institution, namely the Military Technical and Testing Institute, in western Slovakian Záhorie (Vojenský technický a skúšobný ústav [VTSU] Záhorie) have been set up within the defence ministry. [13] The institution was founded in 1923, until the dissolution of Czecho-slovakia in 1993, it served as the testing area of the most modern equipment of the military and arms industry exclusively. [13] Since the establishment of the Slovak Republic in 1993, the main profile of the institute is still in the testing of military developments, while the research also plays an increasingly important role within the VTSU. As a body of the Ministry of Defence, this institution carries out the official accreditation for the technical conditions of hazardous substances in accordance with the rules of NATO and operates the military training base as well. [14] The current director František Petráš, beyond seven people work within the VTSU. [15]

**Slovenia**

The Defence Research Centre within the University of Ljubljana – Faculty of Social Sciences – is an important player of Slovenian military science research work. [16] The research workshop centre was officially founded in 1985, which aimed to analyse security and defence policy, military science, war, and social dimensions of peace in the modern world. As a main objective, the centre defined the empirical and theoretical contributions to the security policy studies. In the last decades, it was involved in a number of international and domestic projects, in addition its researchers are active members of several international organizations (International Studies Association – ISA, International Political Science Association – IPSA, European Research Group on Military and Society – ERGOMAS, European Association for Standardising Information and Communication Systems – ECMA). As well as research, the defence research centre takes an active part in the training and education of future scientists. [16] The head of the centre is Marjan Malešic, and including him, the institute has 14 members. [17] In 2015, they published several Slovenian and English-language materials, and they are actively involved in several international projects as well. [18] The analysed topics cover the issues of terrorism, the conflicts of the Balkans and many other relevant questions. The training of Slovenian soldiers takes place – among others – in the military education and training centre of Maribor. [19]

**Austria**

In Austria, the gist of military science research work is carried out by the Austrian National Defence Academy (Landesverteidigungsakademie). [20] The prestigious Academy, established in 1963, employs a large number of researchers, and is labeled as the Austrian forces’ “think tank”. Currently it has 240 employees, including more than 35 man-at-arms, around 2,000 students, out of which the number of foreign students has reached one hundred.
Professional personnel at all levels are trained at the academy, moreover, significant work in scientific research is also present. The longest-operating part of the academy is the Institute of Higher Military Leadership (Institut für Höhere Führung Militärische), whose main task is operational, tactical, logistical and organizational education. In addition, foreign exercises and conferences are also organized by the students and staff, as well as lots of publications available on the topics of education. [21] The main profile of the Institute of Strategic and Security Policy of the Academy is professionalized in the research field of military strategy, international security policy and recent history. Their results are regularly communicated in their publication series (Schriftenreihe der Landesverteidigungsakademie). [22] The institute also organizes conferences and symposia, as well as cooperates with universities and research institutions both at home and on an international level. [23] The Peace and Conflict Management Institute (Institut für Friedenssicherung und Konfliktmanagement) [24] also operates within the academy, which was founded in 1999. In addition to the research, they are responsible for PR-activities, as well as engaging in policy advice.

The Social Sciences Institute (Institut für Human- und Sozialwissenschaften) of the academy, in addition to teaching and training, carries out sociological research within the field of military sciences and provides consultancy as well. [25] One of the main pillars of their activities are the analysis of sociological, social and human factors that affect the relationship between military and the civilian population. The second pillar’s ambition is to increase the social acceptance of the armed forces within the Austrian political system. The research also contributes to consolidating the Austrian Security Strategy. Considering domestic relations, similar specialists of military sociology are working currently at the National University of Public Service, in the Hungarian Defence Force (HDF) General Staff Scientific Research Centre, and the HDF Civil-Military Cooperation and Psychological Operations Centre.

The Language Institute of the Austrian National Defence Academy (Sprachinstitut des Bundesheeres an der Landesverteidigungsakademie) in cooperation with the Austrian Ministry of Defence is responsible for the language training, testing, translation, interpretation and administrative work. [26] The Central Documentation Department of the Academy (Zentraldokumentation) is the information source for Austrian Armed Forces. [27] The institute issues the Austrian military magazine (Österreichische Militärische Zeitschrift), which is a bi-monthly magazine of the armed forces (published every odd month), consisting of about 120 pages with photos and illustrations, as well as military-themed scientific articles. [28]

Austrian officer training is located in Wiener Neustadt’s Maria Theresian Military Academy (Theresianischen Militärakademie). The Institute is one of the world’s oldest military academies, founded on 14 December, 1751. [29] The academy offers three years of intensive training for the soldiers, who are given the rank of lieutenant when acquiring diploma.

**Romania**

Romanian military scientific research is based in the Defence and Military History Political Studies Institute within the Ministry of Defence in Bucharest (Institutul Pentru Studii Politice de Aparare Si Istorie Militara – ISPAIM). [30] The Institute’s three main research areas are international security, defence policy and military history. The Institute’s website has articulated a number of objectives, one of which is to present and analyse NATO, the EU, and the Romanian Army transformation steps and challenges. [30] Military leadership training is
also involved, and it mainly focuses on security policy and cultural knowledge. Members of the Institute carry out Romanian and universal historical research, in addition, inform the active members about the latest military research. The military history research is an important element of their activities, the lessons learned in the historical analyses are regularly carried over to modern warfare. The members of the Institute publish regularly and they are similarly active at international conferences as well. Their scientific results are published in periodicals.

Scholarly work is carried out at the Bucharest, Charles I National Defence University as well. [31] Since the school was founded in 1889, more than 21 thousand officers have been trained. In addition to the training, the Institute of Strategic and Defence Security (Centrul de Studii Strategice de Apărare și Securitate) received areas which cover the national defence and security in scientific research. [32] The institute was founded in 2000, it was given its current name in 2003.

The Institute’s scientific research is not only used by the military but also by the political science institutes and ministries. A special emphasis is placed on social sciences, the centre studies those Romanian social phenomena that could affect the military. Their scientific research covers five programs: security and defence theories, European and Atlantic security, military strategy, military and society, as well as areas of strategic importance. [33] An International Symposium has been organized every May since 2003, international scientific conference launches every November. [34] The institute issues quarterly publications titled “Impact Strategic”, the first issue appeared in 2001, since 2005, in addition to Romanian it is also displayed in English, in which there is often a place for the researchers of the HDF General Staff Scientific Research Centre to publish. [35]

Croatia

In Croatia, studies in higher military are carried out in Franjo Tudman National Defence University, and similarly to other countries, the institution plays an important role in military science research. [36] The importance of scientific research is within the organization of the University of Zagreb, a separate institution (Centre for Defence and Strategic Studies “Janko Bobetko”) was set up for that purpose. [37] The members carry out special applied research, with the aim of contributing to the long-term development and modernization of defence technology. The centre operates, in addition to facilitating the provision of technical conditions, to set long-term strategic planning tasks. Its objectives are to provide the scientific research needed to develop the training of military leaders.

The centre has several departments. The technical development and research division carries out scientific research in order to develop military technology. The strategic planning and analytical department focuses on strategic research. The military geographic information system division conducts research in the field of cartography and geography. The work of the centre will also be assisted by a separate laboratory.

Serbia

A separate Strategic Research Institute was established within the Ministry of Defence in October 2006 in Serbia. [38] In the centre of Belgrade, 14 full-time researchers working in four
department, they are: strategic assessment and safety integration, security studies, military history and general administration. The Institute carries out extensive research, not only in terms of military science, but also analysing its sociological aspects. For example – among others – they analyse the threats Serbian society faces and international challenges in security affecting the international status and safety of Serbia, and the possibilities of civil-military cooperation.

The military history department pays special attention to pre and post WWII Serbian history, but there are researchers who specialize in morale of the military and the psychological effects of warfare. The Director of the Institute is Jovanka Saranovic, her major research area is gender equality, and possesses a series of publications on the subject.

The research institute has several long-term projects. Previously it has already researched the situation of women in the Serbian army, but they also studied what effect the information about the army has on high schoolers. The military history department is currently investigating the 19th and 20th Century history of the Serbian army. Recently released analysis elaborates on how to improve the morale of the Serbian army. The Strategic Research Institute has a separate library, which is not available to the general public. They regularly publish publications and issue the printed Military History Magazine (Journal of Military History) twice a year.

In Serbia, the military science training is done by the, 161 year old, Military Academy, where in addition to formal training, military science conferences are often held. The Serbian military technological developments have private institutions within the Department of Defence, namely the Military Technology Institute. After WWII, in 1948, it was created specifically for the development of military equipment, its budget is fully covered by the state. Since its development, it was involved in more than 1,300 modernisation programs, contributing significantly to the fact that Serbian military assets are currently 75% domestic products.

Additionally, to the central organizations, the Belgrade Centre for Security Policy is in operation, and it defines itself as an independent security policy organization on its website. The centre, founded in 1997, aims at contributing to the research of the country’s security, as well as the propagation of democratic rights. The institution analyses the relations of Serbia as well as the European Union and Balkan security policy.

Ukraine

Due to the particular situation of Ukraine and its history, military training is significantly differentiated. The centralization efforts only began in the nineties after the collapse of the Soviet Union, which still have not completely met their objective, although in 1997, the then government, declared a unified concept of higher military training.

Uniformed military researchers thus cannot be mentioned, but the Taras Shevchenko University in Kiev, which is the military academy, performs important functions. The academic department began its training program in 1933, but the only multidisciplinary education began to develop in the nineties. The science life of the academy nowadays is booming, military scientific research in sociology and engineering studies are included. In addition to publications, many books, encyclopaedias, dictionaries, manuals and scientific articles were presented in the last years. They often organize international conferences and further pro-
fessional specialized training. [52] In parallel with security and defence policy, the academy has additional studies on the topic of military law, but there are other social science courses as well.

As a result of the 1997 government regulation, in 1998, Kiev National Defence University was established, which in 2013, was named after Ivan Csermakovszkij. [53] In the university, in addition to military training, technical developments and scientific research is also carried out.

**Conclusion**

Military research in the light of the 21\textsuperscript{st} century challenges deserved significant appreciation. The security structures have to adapt to the dynamically evolving social, economic, administrative or technological changes that have arisen and may radically change the reigning security arrangements. During this adaptation process, forward-looking and multi-year strategic planning is no longer sufficient, keeping in mind that several years ago, defined defence development may be too weak for the environment. Research and the introduction of a modernization process is highly important. The current circumstances require widely based – supported by scientific research – continuous monitoring of short and medium-term planning and strategic goals supported by appropriate background information. [54]

The Carpathian Basin not only ensures the safety of strategic interests and long-term priorities for our country and neighbouring countries, but – as it is increasingly manifested in recent years – is the key to stability of Europe. The scientific research on the adaptation of defence structures, as well as institutions engaged in examining other aspects affecting the force thus play a central role in the international defence system. Although their primary task is the examination of the national security environment – considering past, present and future trends –, it is vital to consider present scientific outcomes of their work as international results.

Similarly, to neighbouring states, in line with the growing demands we have also realized the need for the development of this area to the highest level. Considering Hungarian relations, the HDF General Staff Scientific Research Centre has a niche role, which operates now with 11 employees and a 40,000-volume strong professional library. In the last three years, it has functioned as a key element in domestic military science, and has proven to be substantial on an academic and international level as well.

Among the research units described above, the region must enhance cooperation so that as a result of an active dialogue we may contribute to the more successfully guaranteed medium- and long-term protection of the region. As to the importance of scientific analysis, according to my view, we might not only count the increasing amount of funds for this area, but the exponential increase in the number of professional achievements (publications, conferences, international scientific co-operation), which are designed to serve a more practical role, that is to help the region’s military forces. In light of the current technological development of more modern technologies and combat procedures and the complex security challenges, it is essential to sustain an active scientific life at both international and national levels, in order to continue supporting the adaptation process of research and the armed forces, without which it is impossible to establish effective security systems and maintain current protection levels.
References


[16] University of Ljubljana. Faculty of Social Sciences, Defence Research Centre. wwwfdfv.uni-lj.si/en/research/research-centres/department-of-political-science/defence-research-centre (Downloaded: 2 11 2016)
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[34] Centre for Defence and Security Strategic Studies. Scientific events. (in Romanian) http://cssas.unap.ro/ro/manifestari.htm (Downloaded: 2 11 2016)


[36] Croatian Forces. www.osrh.hr/ (Downloaded: 2 11 2016)


[51] Military Institute of Kyiv National Taras Shevchenko University. (in Ukrainian) www.mil.univ.kiev.ua/ (Downloaded: 2 11 2016)


[53] National University of Defence, Ukraine. (in Ukrainian) http://nuou.org.ua/pro-universytet/istoria.html (Downloaded: 2 11 2016)