МЕЃУНАРОДНО НАУЧНО СПИСАНИЕ

СОВРЕМЕНА МАКЕДОНСКА ОДБРАНА

32

СОВРЕМЕНА МАКЕДОНСКА ОДБРАНА

MINISTRY OF DEFENCE
REPUBLIC OF MACEDONIA

CONTEMPORARY
MACEDONIAN
DEFENCE

Vol. 17, Number 32, 2017

CMD
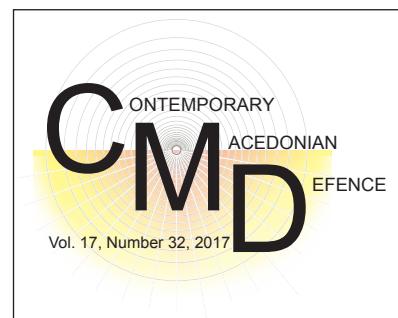
32

VOL. XVII
SKOPJE
JUNE 2017

СОВРЕМЕНА МАКЕДОНСКА ОДБРАНА

CONTEMPORARY MACEDONIAN DEFENCE

СОВРЕМЕНА МАКЕДОНСКА ОДБРАНА

CONTEMPORARY MACEDONIAN DEFENCE

CONTENTS:

NATO'S APPROACH TO THE PROCESS OF COOPERATION AND PARTNERSHIP: EVOLUTION AND KEY OBJECTIVES

Nenad TANESKI [1]
Toni NAUMOVSKI [2]
Rina KIRKOVA [3]

Abstract: *Cooperation and partnership are supporting elements of NATO's operation, and the Alliance has focused on maximizing the value of its partnerships, especially in the context of hybrid threats. In order to facilitate the broader network of partners, the Alliance adopted a new partnership policy in April 2011. Experts frequently challenge the success of its implementation, because of the weaknesses and inconsistencies.*
The paper analyzes the wide network of partner relationships and initiatives with countries and organizations at the regional and global level. The focus is on the functionality and efficiency of NATO's partnership policy and its new tools, aimed at fostering and shaping new effective relationships with potential future and existing partners. The paper gives an overview of the established partnership relations of NATO with Russia and the crisis therein. One of the reasons for this milestone between NATO and Russia are the recent Russian military interventions. The paper is intended to stimulate critical thinking regarding the implementation of the NATO partnership policy.

Key words: *NATO, Russia, security, cooperation and partnership, "28 + n" formula.*

Introduction

NATO's New Strategic Concept, from the Lisbon summit, widely supports the cooperative security that has been identified as one of the core tasks of the Alliance. All summits of the Alliance held recently, after the end of the Cold War, have their own specifics. In fact, what is common for all the summits is the broad support to the process of cooperation and partnership, which is reflected in the adoption of numerous initiatives and programs. Therefore, the development of new approaches that will provide better results in the field of cooperative security is a positive step toward resolving disagreements between member states in terms of Alliance partnerships. Accordingly, NATO's new partnership policy is aimed at ensuring the harmonization of partner programs and tools developed by the Alliance.

---

[1] The author, PhD, is an Assistant Professor, Head of the Department of Military Science, Military Academy/MoD.
[2] The author, PhD, is a Staff Officer in General Staff, Army of the Republic of Macedonia /MoD.
[3] The author, PhD, is an Associated Professor, Faculty of Philosophy - Skopje

Indeed, the aim is to broadly support the process of cooperation and partnership of NATO with countries and organizations across the globe. On the other hand, there is a crisis in the cooperation between NATO and Russia, due to the Russian-Ukrainian conflict, which, as we all agree, originated from the Russian-Georgian conflict in 2008. This raises the question, what should be the relations of the Alliance with the global "players" and what does a "partner" mean, and what are the differences in these relations. Also the challenges posed by hybrid threats are often used to identify the security challenges that NATO has to face in the current strategic context. These multiple and diverse threats give a specific value to the established NATO partnership policy.

The Process of Cooperation and Partnership of NATO, After the Cold War

One of the most important goals and objectives of NATO after the Cold War is to overcome the challenges of the security of member states and their citizens through the establishment of the process of cooperation and partnership (Георгиева, 2010:138). The Euro-Atlantic Partnership Council (EAPC), Partnership for Peace (PfP), Mediterranean Dialogue (MD), Istanbul Cooperation Initiative (ICI), NATO-Russia Council, NATO's relations with Ukraine and Georgia, as well as the established relations with many countries and international organizations such as the EU, OSCE, and UN represents the development of the process of cooperation and partnership. The established forms of cooperation are necessary to achieve common security benefits and facilitate a political dialogue on the security issues of common interest. On the other hand, the partnerships reflect the practical cooperation in the field of security and defence. Each of the established forms of cooperation and partnership are aimed at building close and effective relations in the Euro-Atlantic area and beyond. The experiences of the NATO mission in Afghanistan show that countries that do not belong to Europe, such as Australia, Japan, New Zealand, and South Korea responded to the challenge to contribute to the success of the Alliance's mission in Afghanistan. It is likely that the services of these "Contact Countries" or as it is also called "Partners across the Globe" or "Global Partners" should be of great benefit in post ISAF mission, "Resolute Support". The Group of "Global Partners" actually tends to expand even further, and many analysts stress that this process actually expresses the US foreign policy. This is due to the fact that the emphasized US interest for Asia encourages the process of cooperation and partnership with countries and organizations around the globe (Flockhart, 2014:29-32; Moore, 2014:77-83).

However, let us go back to the years after the Cold War, when it was necessary to find forms of cooperation and partnership in order to build a new democratic Europe. Furthermore, the newly emerging countries in Central and Eastern Europe had the need to begin their path to political and military integration into NATO. It was possible through dialogue and military cooperation within the Partnership for Peace and the North Atlantic Cooperation Council, later Euro-Atlantic Partnership Council. These

forms of cooperation aspired to achieve the NATO vision for a "whole and free" Europe. The NATO Handbook (NATO Handbook, 2006:195) states that since the launch of the Partnership process, a remarkable progress has been made and the EAPC and PfP have become key fixtures of the Euro-Atlantic security architecture. There have been setbacks and difficulties, which were perhaps unavoidable given the complex process of political, economic and social change taking place in Central and Eastern Europe and the former Soviet Union. However, within just a few years, the EAPC and PfP have steadily developed their own dynamics, as successive steps have been taken by NATO and its partner countries. Other forms of partnership based on the geographical origin of the partner countries are the Mediterranean Dialogue (MD) and the Istanbul Cooperation Initiative (ICI). The Mediterranean Dialogue was established at the Madrid summit in 1997 as the need of practical cooperation and dialogue with the countries of the Mediterranean, related to the security and stability in the Mediterranean region and beyond. At the Istanbul summit in 2004 the establishment of the Istanbul Cooperation Initiative was announced. The Initiative includes the Mediterranean Dialogue and the wider Middle East region. It is important to state that the reaffirmation of all these partnership programs has been made on the summit in Warsaw, last year. In the context of the vast network of partners of the Alliance, it is necessary to highlight NATO's relations with Ukraine and Georgia and certainly NATO's relations with Russia. The establishment of the NATO-Ukraine Commission in 1997, the NATO-Russia Council in 2002 and the NATO-Georgia Commission in 2008 (Marônková, 2012) represents an aspiration towards strengthening of these partnerships. The NATO-Ukraine coopera-tion is an important part of the Alliance's contribution to the international community's efforts to project stability in the Euro-Atlantic area and beyond, which is highlighted in the Warsaw Summit Communiqué (Warsaw Summit Communiqué, 2016). In the Communiqué is stated that NATO will enhance Ukraine's ability to better provide for its own security, through functioning security and defence institutions under civilian democratic control that are accountable, sustainable, and effective. NATO will continue to provide strategic advice and practical support to the reform of Ukraine's security and defence sector. NATO's support to Ukraine, should include tailored capability and capacity building measures for the security and defence sector, in order to enhance Ukraine's resilience against a wide array of threats, including hybrid threats. The same applies to Georgia. NATO highly appreciates the significant progress realised since 2008. Georgia has made a significant progress and has come closer to NATO by implementing ambitious reforms. The Alliance encourages Georgia to continue mak-ing full use of all the opportunities for coming closer to the Alliance, offered by the NATO-Georgia Commission and the Annual National Programme. But the mentioned partnerships are under the "big test" because of the security developments in Ukraine, where the interests of NATO on the one hand and Russia on the other are intertwined.

In April 2014, predictably, drastic changes occurred in the perception regarding the partnership between NATO and Russia. The foreign ministers of NATO member

states made a decision to terminate the practical military and civilian cooperation of NATO with Russia. On the other hand it is difficult to assess the adequacy of the support for Ukraine by NATO, when its territorial integrity is threatened, a situation that existed in the case of Georgia in 2008. It seems that the events in Georgia are not a lesson learned for NATO on Russia's behaviour towards issues related to the Euro-Atlantic integration of its neighbours. In terms of the Ukrainian crisis, the findings of Kaim (Kaim, 2014) are also important. According to Kaim, the political turmoil and loss of Crimea to Russia have weakened Ukraine politically, economically, and militarily. He states that, to complicate matters, Ukraine suffers from a lack of cohesion in its society, and the continuing unrest in its eastern regions. Consequently, the country will require foreign assistance to safeguard its territorial integrity and political sovereignty. Kaim underlines that this situation could open up an opportunity for NATO to play an important role, although the Alliance is currently unclear about what precisely it should do to realign its relationship with Ukraine. Nor does Ukraine seem clear about what it wants.

The former "good" NATO relations with Russia are prejudiced, and the Warsaw Summit Communiqué (Warsaw Summit Communiqué, 2016) does not give hope of overcoming confrontations regarding global and Euro-Atlantic security architecture. The Communiqué states that NATO remains open to a periodic, focused and meaningful dialogue with a Russia willing to engage on the basis of reciprocity in the NATO-Russia Council, with a view to avoiding misunderstanding, miscalculation, and unintended escalation, and to increase transparency and predictability. Moreover, NATO also has military lines of communication. According to the Communiqué NATO will continue to use all channels of communications to address the critical issues that it has faced. The Alliance, due to the security situation in the Baltic Sea region, also has developed mutually beneficial partnership relations with Finland and Sweden. This process requires cooperation on a broad range of issues.

NATO's relations with international organizations such as the EU, OSCE and UN are also of great importance. The partnership between NATO and the EU is occasionally exposed to competition and divergence of perceptions regarding certain security issues. Most of the NATO allies are also members of the EU. According to that, it would therefore seem reasonable to develop a strategic partnership and bring cooperation between the two organizations to a whole new level (Legendre, 2014:124). Legendre (Legendre, 2014:131) emphasizes that the strategic environment is changing, and the time seems ripe to re-balance Europe and strengthen the EU–NATO partnership. However, that does not mean that the differences will disappear, but it must be insisted. The Warsaw Summit Communiqué (Warsaw Summit Communiqué, 2016) states that the European Union remains a unique and essential partner for NATO. Furthermore, enhanced consultations at all levels and practical cooperation in operations and capability development have brought concrete results. In terms of hybrid threats, the Alliance is committed to effective cooperation and coordination with partners and relevant

international organizations, the EU in particular, in efforts to counter hybrid threats.

The Forum for dialogue on issues of Euro-Atlantic security, the Organization for Security and Co-operation in Europe (OSCE) plays an important role in trying to bring an end to several protracted conflicts in the Euro-Atlantic area - is the assessment of the NATO on the summit in Warsaw. The crisis in Ukraine has once again highlighted the significance of the OSCE for international efforts to support the peaceful resolution of conflicts, and the Alliance is committed to further enhancing cooperation with OSCE, at both the political and operational level, in all areas of common interest (Warsaw Summit Communiqué, 2016). In terms of the UN, the Communiqué also welcomes the continued growth in political dialogue and practical cooperation between NATO and the UN, covering a broad range of areas of mutual interest. It is stated that, as challenges to international peace and security multiply, cooperation between NATO and the United Nations is increasingly important.

However, the time will show how much the commitments expressed at the summit in Warsaw are absolved by the member states of NATO and the partners of the Alliance, of which depends the success of what has been agreed in Poland in July 2016.

NATO's New Partnership Policy and the Relations of the Alliance with the Global "Players"

The process of cooperation and partnership takes the prominent place at all NATO's summits held recently. With the adoption of the NATO's Strategic Concept, at the summit in Lisbon in 2010, a "cooperative security" is identified as one of NATO's three essential core tasks. It becomes clear that the promotion of Euro-Atlantic security is best assured through a wide network of partner relationships with countries and organizations around the globe (Partnerships: a cooperative approach to security, NATO, 2014). This highlights the need to establish a dialogue and cooperation with partners on more inclusive and flexible basis, which resulted in a new partnership policy[4], which was endorsed by NATO Foreign Ministers at their meeting in Berlin in April 2011. This policy, despite the importance of the established forms of cooperation and partnership (EAPC, PfP, MD, ICI, etc.) highlights the importance of partners participating in the NATO-led operations, as well as the importance of political dialogue and cooperation with international organizations and countries around the globe. The implementation of the "28 + n" formula is aimed to improve the consultation in a flexible format, in order to strengthen the partnership and improve the transparency and consultation on security issues of common interest. The harmonization of partner programs and tools is also one of the provisions of this policy, in order to enable greater access to the activities of cooperation with partners. The new policy is designed, not only to facilitate greater

---

[4] "ACTIVE ENGAGEMENT IN COOPERATIVE SECURITY: A MORE EFFICIENT AND FLEXIBLE PARTNERSHIP POLICY", *NATO-OTAN*, 15 Apr. 2011.

http://www.nato.int/nato_static/assets/pdf/pdf_2011_04/20110415_110415-partnership-policy.pdf

dialogue among partners outside and across existing partnership frameworks. It also opens, to all partners, opportunities for practical cooperation with NATO that may have previously been available in only one of the NATO's partnership structures (Moore, 2012:56). This will facilitate the process of building specific military capabilities, and also will improve the financial contribution towards strengthening the capabilities of the Alliance, which currently, due to reduced defence budgets, is of utmost importance.

According to Moore (Moore, 2014:76), the new partnership policy, approved in Berlin in 2011, sought to move the Alliance beyond the disagreements related to the process of building a partnership. Rather than focus on the geographically based multilateral frameworks such as EAPC, MD and ICI, around which NATO had historically organized its partnerships, the Berlin agreement sought to build new relationships principally on a bilateral basis. Moore (Moore, 2014:76-77) emphasizes that the new policy created opportunities for dialogue and practical cooperation with states outside of the multilateral NATO's formal partnership frameworks. A good example for this is creating of the "28+n" format and harmonization of the process of identifying the partnership activities in which the partners wish to participate by creating a single Individual Partnership and Cooperation Programme. Moore (Moore, 2014: 80-84) also points out the difficulties of implementing the partnership policy in terms of the inclusion. The fact that a number of NATO partners have not accepted the liberal democratic values causes dilemma how the relationships with these partners will support the NATO's democratic principles. This dilemma, as Moore (Moore, 2014:84) points, is likely to be particularly acute with respect to China. This is due to the fact that China, unlike the other non-democratic NATO partners, has a great power that shapes international order in a direction that is very different from the democratic values that NATO has pledged to defend. But if the interest of NATO, namely the United States, for East Asia further continues it is necessary to transform the relations of mistrust, and build solid and transparent relations with China, in terms of common interests, such as for example maintenance of stability in Afghanistan. The development of NATO's partnerships has always been a response to the international environment and to tensions and different perspectives within the Alliance, although in the end policy has tended to express European support for American foreign-policy objectives and grand strategy. NATO's new partnership policy is no exception to this pattern (Flockhart, 2014:17). According to Flockhart (Flockhart, 2014:23-26) NATO's approach to partnership has always been flexible, adaptive and pragmatic, within a context of shared but US-led foreign-policy objectives. The culmination so far in the institutional development of NATO's partnership is the new "more flexible and efficient" partnership policy with the single overarching aim of contributing to security through cooperation. She uses the more functional term "Operational Partners" to describe those countries that participate in NATO missions and are "contributors to security", versus the reduced importance attached to the geographical location of partners. Flockhart says that the emphasis on partners as contributors to security was further reiterated at the Chicago Summit in May

2012. This was demonstrated by the meeting with thirteen specially invited partners "who have recently made particular political, operational and financial contributions to NATO-led operations". Thus, on the list of thirteen countries were Australia, Austria, Finland, Georgia, Japan, Jordan, Republic of Korea, Morocco, New Zealand, Qatar, Sweden, Switzerland and United Arab Emirates. It is clear that what now matters in NATO's partnership relations is no longer geographical situation or shared values and political systems, but rather the willingness and ability to contribute to missions that NATO as a whole has decided to engage in. Flockhart concluded that this is a major change in the NATO's approach to partnership. However, it cannot be said that there is clarity in the NATO documents. The commitment of NATO for closer cooperation with "Operational Partners" probably stems from the fact that these partners can provide more capabilities (for example Australia, Japan, Republic of Korea, Qatar, Sweden, Finland, etc.) than some NATO countries. This applies to geographic-based partnerships, which are burdened with a series of security problems and instead of being exporters of security they are consumers of it.

According to Appathurai (Appathurai, 2014:36) the general direction of travel of NATO's partnerships seems likely to follow three main tracks: preparing together, consulting together, and acting together. He emphasizes the importance of interoperability between NATO and partners. That interoperability will actually be achieved through joint preparations. But while military interoperability is necessary it is not sufficient. Contributing effectively to international peace and security also requires political interoperability, that is, a common understanding of the problem, and of the solution (Appathurai, 2014:38). Appathurai points out that the Strategic Concept commits NATO to be open to consultation with partners on issues of common concern. In the context of the need of acting together Appathurai (Appathurai, 2014:42) argues that recent history demonstrates that the Alliance is most effective where it has partners. Probably in that direction is the insistence of the US and NATO to provide a larger number of partners in the fight against militant movement ISIL or ISIS, which increasingly threatens the area of the Middle East. The recent published US strategy for dealing with the militant movement ISIL, despite airstrikes, training and assistance to Iraqi security forces and preventing the financing of the ISIL includes mobilizing of the international community on this issue.

Establishing a closer partnership of the Alliance with China and India, which possess power (economic, political and military) and their power is rising increasingly, will be particularly important for the process of consultation and cooperation on security issues of common interest. In this context, caution must be taken, as a result of the experience of NATO's relations with Russia. This relationship was an example of building trust and partnership between the two former opposing entities. According to many experts, the intensification of dialogue and cooperation between NATO and Russia was due to the developments in the security environment, especially after the attacks of 11 September 2001. But since 2008, besides other things, a Georgia has been

"stumbling block", and then Ukraine. The events of September 11 caused expansion and deepening of the relations with Russia, which led to the establishment of the NATO-Russia Council. But, it remains to be seen how practically suspended military and civilian cooperation with Russia will affect the NATO relations with Russia. It will be wrong to wait, as in the period after the Cold War, when the probability of "Weak and Good" Russia was very high. Now the situation has changed and we have a "Strong and Bad" Russia instead of the more desired probability "Good and Weak" or "Strong and Good". It can be explained by using a simple framework or the so-called "The Russia Matrix and the Missing Quadrant". This framework was first developed in 2008 after the Georgia crisis, by Gaddy and Ickes. This is a matrix with two columns, (Figure 1) one labelled "Strong Russia" and the other "Weak Russia", and two rows, one for "Good Russia" and the other for "Bad Russia". The various "future Russias" as they were envisioned by most Western policymakers in the early 1990s after the collapse of the Soviet Union are placed into the quadrants of this matrix (Gaddy and Ickes, 2014).

The explanation of Gaddy and Ickes is: The first possible Russia was one that would reform and succeed. That is, it would accept the so-called Washington consensus for economic reform and develop its democracy. This would result in a strong Russia that was positively inclined toward the West (that is, "good"). The second Russia would try to reform but never succeed. This Russia thus remain weak, but as long as it kept trying to be part of the West and following the U.S. lead, it would still be "good". A third Russia would be one that rejected reforms altogether. It would also refuse to accept the U.S.-led post-Cold War international order (hence, it would be "bad"), but since it didn't reform it would remain weak.

	"Strong Russia"	"Weak Russia"
"Good Russia"	Very low probability	High probability
"Bad Russia"		Low probability

Figure 1 "The Russia Matrix and the Missing Quadrant"

Figure 1, each quadrant indicates the probability of each potential outcome after the Cold War. But as Gaddy and Ickes point out, there is one quadrant that is missing. What could not be imagined at all was the fourth alternative: a "Strong and Bad" Russia. Hence, no probability was attached to that outcome. Russia's use of hybrid warfare in Ukraine forced a reassessment of the basic assumptions that served as the foundation of transatlantic security for decades. Moreover, the rise of ISIS, combined with the continuing civil war in Syria, compromises Europe's security in areas beyond the military domain, e.g., mass migration and organized crime. It is, therefore, safe to

suggest that, since the security environment is changing, partners are changing as well and NATO's means of interacting with partners is evolving in kind (Nasuti, Reynolds and Siserman, 2015:97). In line with NATO's new partnership policy, the Alliance approach to the process of cooperation and partnership must be spread and deepened, especially if the security of the partner country or partner countries is threatened. The common security goals are not only defined by NATO. If the contribution of Ukraine in Kosovo, Afghanistan and in the NATO Response Force - NRF is significant, then the commitment of NATO to the question of the Ukrainian crisis should be significant (for example, approved funding by the member states of NATO in order to improve the military capabilities of Ukraine). Besides dialogue and cooperation, improving transparency and practical cooperation is more than necessary.

Conclusion

After the Cold War, the important issue for the functioning of the Alliance is the process of cooperation and partnership. The established forms of cooperation and partnership are aimed to build close and effective relations in the Euro-Atlantic area and beyond. Besides the geographically based multilateral frameworks the new relationships with partners seek to be built on more inclusive and flexible basis. This has initiated the adoption of a new policy of NATO partnership in 2011, which aims, among other things, to bridge the misunderstandings of NATO member countries of the process of cooperation and partnership. In fact, rather than geographically based multilateral partnerships, new approach addresses the increasing practical cooperation with countries outside the formal partnership framework and they are based on a bilateral basis. This is also due to the increased US interest for Asia. The success of this process is closely connected with the support of the European member countries of NATO and also with the transparency, because of the participation of the global "players" in this process. Among other things, some of these "players" have not accepted the liberal democratic values of the Western world, such as China and Russia. Additionally, the relations with Russia are very concerning. Besides the quadrant, of Gaddy and Ickes for "strong and bad" Russia, that is missing, also linked to Putin's statement that "Russia is not a bear that West will put on a chain", it will be more dangerous if that "bear" is hurt. And, above all, the new security environment, in context of combating hybrids threats, does not require new capabilities as much as new partners, new forms and processes of cooperation, and also new thinking.

The process of cooperation and partnership must be a two-way process. NATO must take into account the security of its partners. In this interdependent world, the fact that NATO is the most successful where it has partners, now is the time when some of the partners send the "bill" to NATO for the partnership, in a situation when their security is threatened. NATO must find the most appropriate way to meet the requirements of the partners, where the transparency of partnerships is the most importance.

REFERENCES:

1. Appathurai, J. (2014) "The Future of NATO's Partnership", in Flockhart, T. (ed.) *Cooperative Security: NATO's Partnership Policy in a Chaining Word,* DIIS Report 2014:01, pp. 35-46.

2. http://www.diis.dk/files/media/publications/import/extra/wp2014-01_nato-partnerships_tfl_web.pdf

3. "Active Engagement, Modern Defence, Strategic Concept for the Defence and Security of the Members of the North Atlantic Treaty Organization adopted by Heads of State and Government in Lisbon", *NATO-OTAN*, 19 Nov. 2010.

4. http://www.nato.int/cps/en/natolive/official_texts_68580.htm

5. "ACTIVE ENGAGEMENT IN COOPERATIVE SECURITY: A MORE EFFICIENT AND FLEXIBLE PARTNERSHIP POLICY", *NATO-OTAN*, 15 Apr. 2011.

6. http://www.nato.int/nato_static/assets/pdf/pdf_2011_04/20110415_110415-partnership-policy.pdf

7. Gaddy, G.C. and Ickes W.B. (2014) "Ukraine, NATO Enlargement, and the Geithner Doctrine", *Research*, BROOKINGS, June 10, 2014.

8. http://www.brookings.edu/research/articles/2014/06/10-ukraine-nato-geithner-doctrine-gaddy-ickes

9. Георгиева, Л. (2010) *Европска безбедност: концепти, процеси и институции*, Скопје: Универзитет „Св. Кирил и Методиј", Филозофски факултет, Институт за безбедност, одбрана и мир.

10. Kaim, M. (2014) "Partnership plus: the future of the NATO-Ukraine relationship", *Bulletin of the Atomic Scientists*, 06.11.2014.

11. http://thebulletin.org/partnership-plus-future-nato-ukraine-relationship7236

12. Legendre, T. (2014) "NATO's Cooperation with the EU doesn't work and it doesn't really matter ... yet!", in Flockhart, T. (ed.) *Cooperative Security: NATO's Partnership Policy in a Chaining Word,* DIIS Report 2014:01, pp. 121-131.

13. http://www.diis.dk/files/media/publications/import/extra/wp2014-01_nato-partnerships_tfl_web.pdf

14. Marônková, B. (2012) "NATO's Partnerships Before and After the Chicago Summit*",* in Majer, M., Ondrejcsák, R. and Tarasovič, V. (eds.) *Panorama of global security environment 2012.* Bratislava: CENAA, pp. 141-153.

15. http://cenaa.org/analysis/natos-partnerships-before-and-after-the-chicago-summit/

16. Moore, R.R. (2012) "Lisbon and Evolution of NATO's New Partnership Policy", *PERCEPTIONS*, Spring 2012, Volume XVII, Number 1, pp. 55-74.

17. http://sam.gov.tr/wp-content/uploads/2012/02/RebeccaMoore2.pdf

18. Moore, R.R. (2014) "Partners, the Pivot, and Liberal Order", in Flockhart, T. (ed.) *Cooperative Security: NATO's Partnership Policy in a Chaining Word,* DIIS Report 2014:01, pp. 73-86.

19. http://www.diis.dk/files/media/publications/import/extra/wp2014-01_nato-partnerships_tfl_web.pdf

20. NATO's Public Diplomacy Division, (2006) *NATO Handbook 2006*, 1110 Brussels, Belgium: NATO's Public Diplomacy Division.

21. Nasuti, N., Reynolds, J. and Siserman, C. (2015) "Forging The Future Of Nato's Partnerships", in Fassi, E., Lucarelli, S. and Marrone, A. (eds) *What NATO for what threats? Warsaw and Beyond,* 2015 NATO HQ - Boulevard Léopold III, 1110 Brussels – Belgium.

22. http://www.iai.it/sites/default/files/what-nato-for-what-threats.pdf

23. Office of information and Press, (2001) *Прирачник за НАТО 2001*, NATO-1110 Brussels-Belgium: Office of information and Press.

24. "Partnerships: a cooperative approach to security", *NATO-OTAN*, 31 Mar. 2014.

25. http://www.nato.int/cps/en/natolive/topics_84336.htm?

26. "Путин до западот-Русија не е мечка која ќе ја водите за синџир", *Sitel*, 18 декември 2014.

27. http://www.sitel.com.mk/putin-do-zapadot-rusija-ne-e-mechka-koj-kje-ja-vodite-za-sindzhir-0

28. "Russia's accusations - setting the record straight", Fact sheet- April 2014, *NATO-OTAN,* 12 Maj. 2014.

29. http://www.nato.int/cps/en/natolive/topics_109141.htm

30. "Statement by NATO Foreign Ministers", *NATO-OTAN,* 1 April 2014.

31. http://www.nato.int/cps/en/natolive/news_108501.htm?mode=pressrelease

32. Flockhart, T. (2014) "Introduction: Chaining Partnership in a Chaining Word", in Flockhart, T. (ed.) *Cooperative Security: NATO's Partnership Policy in a Chaining Word,* DIIS Report 2014:01, pp. 17-34.

33. http://www.diis.dk/files/media/publications/import/extra/wp2014-01_nato-partnerships_tfl_web.pdf

34. "Warsaw Summit Communiqué, Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Warsaw 8-9 July 2016", *NATO-OTAN*, 09 Jul. 2016.

35. http://www.nato.int/cps/en/natohq/official_texts_133169.htm

305:355.45 (497.7)
Original scientific article

INTEGRATION OF THE GENDER EQUALITY AND GENDER PERSPECTIVE IN THE DEFENSE SYSTEM OF THE REPUBLIC OF MACEDONIA

Zhanet RISTOSKA[1]

Abstract: *Paying equal attention to the needs and priorities of women and men is a civilizational value, a characteristic of the modern age in which mankind's aspiration towards democracy is unquestionable. The security needs of both women and men need to be taken into account paying attention to their often different perspectives. This is achieved through equal participation of both men and women in decision-making processes, in policy formulation and implementation, drawing mutual enrichment from their differences. An essential ingredient for such an approach is the creation of conditions resulting in more women in security institutions than was historically the case. Increasing the number of women in security institutions and structures of a state enables the security policies' formulation to be enriched by the experiences, knowledge, interests, and needs of both women and men. In this way, institutions will be more effective in responding to different security needs within the society. The integration of the principles of gender equality may alter the perception of the military as an institution primarily engaged in violence and warfare into one aimed at building peace and security. However, for this to happen, the security sector reform processes need to address the gender dimension both in terms of rules and procedures and in terms of the organizational culture.*
The Ministry of Defence and the Armed Forces of the Republic of Macedonia strive to follow the standards for inclusion of women in all aspects of the defence area. Hence, they consistently adhere to the provisions of the adopted National Action Plan for implementation of the Resolution 1325. In addition, other documents for the Resolution's implementation have also been adopted. Furthermore, over the past few years great effort has been invested to promote gender equality and gender perspectives in the defence area.
The goal of this paper is to explain some terms connected with gender related challenges in the society, to explain the Resolution 1325, and its importance. We will present some activities that have been taken within the Ministry of Defence and the Armed Forces of the Republic of Macedonia during the past several years for integration of gender equality and gender perspective within the defence system, with a special emphasis on the National Action Plan for implementation of the Resolution 1325 of the Security Council of UN.

Key words: *gender, gender equality, gender perspective, defence, military*

---

[1]   The Author,PhD, is Editor in Chief in the Ministry of Defense of the Republic of Macedonia

Introduction

Human rights belong to everyone and should be guaranteed and available to all human beings regardless of their differences. The concept of human rights is part of the International Law, and as a separate UN document refers to the Universal Declaration of Human Rights, the Pact on Civil and Political Rights, and other international conventions. Further protection of human rights is guaranteed by the highest legal acts, as well as national constitutions and laws. The concept, content, and especially the implementation of the laws are too universal and cannot reach out to women's rights in particular. Thus, the identification of women's human rights as a separate category of human rights is essential for identifying all forms of female discrimination, aiming at its prevention, and elimination. Gender stereotypes ignore the specific interests and needs of women. Women's rights do not represent a feminist argument, or the introduction of a ''new miracle'' in the society, they refer to a series of actions that a country should take to be able to provide women with equal human rights.

Achieving gender equality is of utmost importance to the protection of and exercising basic human rights, and the protection of the rule of law. The official documents of many organizations (UN, NATO, EU, OSCE, etc.) have identified the achievement of gender equality, and the inclusion of women into all spheres of society as necessary prerequisites for establishing peace, and economic and social development. In its 16th and 17th sessions held in 1997, the Committee on the Elimination of Discrimination against Women concluded, among other things, that "governments are obliged to ensure the presence of women at all levels, and in all areas of international affairs. This requires that they be included in economic and military matters, in both multilateral and bilateral diplomacy…" (Committee on the Elimination of Discrimination against Women, 1997). This was ratified by the 1995 Beijing Declaration and Platform for Action and the 2000 UN SC Resolution 1325, both of which stress the equally important role of men and women in promoting sustainable peace as well as the necessity of including women in conflict prevention, peace-building processes and post-conflict reconstruction, and of increasing the number of women in both political life, and security institutions. Equal participation of women and men in security institutions, creation, and implementation of policies, as well as in decision making processes is an indisputable democratic value. However, apart from the imperative to observe fundamental human rights to freedom of choice and equality, this process also entails multiple benefits for individuals, the community and the defence system composed of those individuals. Diversity of qualifications and resources, complementary skills of both male and female members are crucial for the operational effectiveness of the defence system, especially in the light of the ever-increasing complexity of the civil-military interaction, public relations and information gathering.

The processes of reform create new concepts of security where changes to the defence forces and their structure correspond to the needs of national security, but also to the needs of its citizens. The integration of the gender issues into defence systems means an introduction of gender perspective into politics and the practice of defence institutions.

Armed forces that include women in their structures are more suited to the modern social environment within which these armed forces have been created. Since women make up more than half of the total population, the issue of gender is also related to the strategy of development. Due to this fact, 'a society that does not use half of its resources is not expected to plan properly for its future' (Petrović, 2007). Resolving the issue of gender will address the changing needs of the defence system, and improve operational defence ability. Involvement of women will enable defence forces to undertake their tasks more efficiently.

Dealing with gender issues in a defence system brings in new experience, knowledge,

and the interests of both men and women; it creates a new concept of politics and new processes for performance and evaluation (Gya, 2007). Integration also eliminates discrimination based on gender difference.

To achieve gender equality, it is also necessary to adopt and apply normative decisions that introduce gender perspectives, and respect for gender differences. In addition, it is mandatory to establish institutional bodies, such as advisers or contact officers for gender issues in military organizations. At the human resource level, it is fundamental to employ more women, keep them in the service and provide professional career paths as they are significantly outnumbered in the defence system. To make women more 'visible' in military organizations they should be involved in the process of conflict resolution at the global level.

Gender, Gender Equality and Gender Opportunities in the Society

Gender as a dynamic concept is a constant and integral part of the multiculturalism. The word "gender" was first used by Ann Oakley (Oakley, 1972). In her book, she explains the characteristics of men and women, which are socially (gender) and biologically (sex) determined. The difference is made to stress everything that is expected for men and women to do. With the exception of the sex specific differences, all other are related to the development of social and cultural factors in the society, and beyond. Certain events in history may have a permanent influence in the determination of the gender roles. The culture and the socio-economic factors are variable categories for functioning, but history has shown that gender roles have simultaneously changed in relation to behaviour, decision-making, attitudes, activities and power in different cultural, social, and ethnic groups (Oakley, 1972).

Equal rights of men and women implies fairness in dealing with men and women according to their personal needs; fairness especially in terms of the rights, benefits, obligations, and opportunities. Gender equality refers to the promotion of personal, social, cultural, political, and economic equality for all. Gender equality means that different behaviours, aspirations, needs of women and men are respected, considered, valued, and supported equally. This means that their rights, responsibilities, and opportunities will not depend on whether they were born male or female. It is a concept based on the principles of human rights and social justice. It is clearly recognized that gender equality, and empowerment of women are essential for tackling poverty and insecurity, as well as for the achievement of sustainable human cantered development (http://www.unwomen.org/en).

Equal opportunities for women and men in society imply absence of gender-based impediments to their economic, political, and social participation. The concept means promotion of the principle of introducing equal participation of women and men in all spheres of the public, and private sector, equal status, equal treatment in the exercise of all rights, and development of their individual potentials, through which they contribute to social development, and equal benefits from the outcomes of that development.

Gender perspective is a view on the gender differences in any given policy activity. It is a concept generally accepted in the process of assessing the implications of any planned action on women and men, including legislation, policies or programs in all areas and at all levels. It is a strategy on issues and experiences of women and men striving to become an integral dimension of the design, implementation, monitoring, and evaluation of the policies and programs in all political, economic, and social spheres, so that women and men have equal benefits and equal opportunities. The ultimate goal here is to achieve gender equality (http://www.unwomen.org/en).

Gender impact assessment involves assessment of the political proposals referring to the different impacts on men and women in order to identify whether the discriminatory effects have been neutralized, and thus, gender equality achieved.

Gender sensitivity implies the ability to understand and point to the existence of gender differences, problems, and inequalities, and these to be included in strategies and actions for the purpose of overcoming them.

Gender mainstreaming is the integration of the gender perspective into every stage of the process of policy making, adoption, implementation, monitoring, and evaluation - thus, taking into account the promotion and advancement of equality between women and men. It means making an assessment of how policies influence the life and the place of women and men, and taking responsibility to address issues by creating a place for everyone, starting from the level of the family, up to the wider community; it means making a contribution to the process of building a common and shared vision for the achievement of sustainable development in the process of turning those policies in reality. In order to achieve this, a high level of political will, commitment, and understanding across all structures and spheres of society is needed. Empowerment refers to both men and women and represents a collective endeavour of an individual change, and a collective action. Empowerment of women means development of their ability to take collective and individual control over their lives, identify their needs and determine their interests. In most cases, empowerment of women requires transformation of the division of labour and society(http://www.unwomen.org/en).

An important condition for equality between men and women is the division of positions of power and decision making (from 40 to 60% for each gender) between men and women in every public sphere of social and political life. Strategic gender needs relates to long-term needs that usually do not refer to material needs, but structural changes in society in terms of the status and equality of women. These needs entail the existence of a legal framework for equal rights, having a choice when it comes to the reproductive role of women, and participation in decision making. The development-oriented institutions and interventions concerning strategic gender interests focus on the fundamental issues of the status of women and gender inequality.

Resolution 1325 on Woman, Peace and Security

At the Fourth World Women's Conference, organized by the UN in Beijing, the People's Republic of China, in September 1995, a Declaration (known as the Beijing Declaration) and a Platform for Action were adopted. By adopting the Beijing Declaration and Platform for Action, the international community has committed itself to the improvement of the status of women and the strengthening of their position in the public and private life. UN member states committed themselves to the implementation of the Platform for Action, which covers areas of particular interest to women. These include women and poverty, women and education, women and health, women and violence, women in armed conflicts, women and economy, women and power, participation in decision making, institutional mechanisms for the strengthening of women, women and human rights, women and the media, women and the environment, and the care for female children.

The adoption of the Resolution 1325 on "Women, Peace and Security" by the Security Council of the United Nations in October 2000, for the first time fully identified women "as equal and constructive actors in the security, peace processes, addressing conflicts as well as in the field of post-conflict peace-building"(Resolution 1325, 2000).

Resolution 1325 calls on all sides in the conflict to fully respect international law in terms of women's and girls' rights and to take into consideration the provisions of the Rome Statute of the International Criminal Court. It also points out the necessity of undertaking all special measures to protect women and girls from gender-based violence and other forms of violence in situations of conflict. (The Geneva Conventions, 1949 and Additional Protocols, 1977).

The purpose of the Resolution 1325 is to offer a solution to the pending issues of women and girls related to peace and security, and thus, it represents the first resolution adopted by the UN Security Council on issues of women, peace and security. The resolution suggests that the exclusion of women from the peace processes is contrary to their rights, or that their involvement and the introduction of the gender perspective in the decision making process will contribute to the efforts for achieving sustainable peace. The Resolution 1325 and the subsequent resolutions of the UN Security Council (Resolution 1820, Resolution 1888 and 1889) are the basis for states and regional organizations to initiate and advocate for effective policy implementation of the principles and provisions of the resolutions.

The Resolution 1325 is a basis for the expansion of the guidelines on human rights, especially human rights of women internationally and calls upon states and international institutions to take steps for its implementation. The adoption of this Resolution has introduced a different approach to peace and security and has opened a legal framework for providing tools that identify women as key factors in creating sustainable peace. The resolution calls for full and proportional representation of women at all levels of decision-making, in conflict prevention, post-conflict situations, and

building, and maintaining peace. By the adoption of Resolution 1325 the concept of security and defence has had to adapt and redefine so as to introduce the gender equality concept. The international community has committed to promoting active participation of women in conflict prevention and peace building in all processes related to security.

The Resolution has recognized the specific effects and consequences armed conflicts have on women. Hence, it called for increased participation of women in the prevention and management of conflicts. The resolution emphasizes the need for a gender perspective in the implementation of peace agreements, disarmament, demobilization, and reintegration, and training of peacekeepers. The Resolution points out that "women's exclusion from peace processes is contrary to their rights, and their involvement and introduction of a gender perspective in the field of security and defence will contribute to the efforts for sustainable peace"(Resolution 1325, 2000).

The Implementation of the provisions of this resolution has been imposed as an imperative to accomplish the standards and fulfil the obligations arising from the partnership with NATO, which has developed an Action Plan for the implementation of Resolution 1325 through the support of the plans and activities of the partner countries. In accordance with the Action Plan of NATO for the implementation of Resolution 1325, the gender perspective is to be realized through 6 items: inclusion of the resolution in all policies, programs and documents; cooperation with all governmental and non-governmental organizations in this area; gender mainstreaming at the operational level; training; Public Diplomacy; national initiatives (http://www.nato.int/nato_static/assets/pdf/pdf_2014_06/20140626_140626-wps-action-plan.pdf).

In the Republic of Macedonia, upon the adoption of Res. 1325 in 2000, special attention was paid to the gender concept in the domestic legislation, as well as to issues related to gender-based discrimination, and equal opportunities of women and men. The situation regarding the implementation of the international norms and standards in this area has been presented in the Fourth and Fifth Periodical Report of the Republic of Macedonia on the Convention on the Elimination of All Forms of Discrimination against Women (2011). Having in mind that Resolution 1325 refers to the provisions in the Beijing Declaration, it further develops the guidelines on strengthening the role of women as regards peace and security, in particular through: Inclusion of women in the decision-making processes related to peace and security (Articles 1 –4); Incorporation of the gender perspective in the peacekeeping operations and missions and delivery of a gender-sensitive training for personnel taking part in missions (Articles 5 – 7); Incorporation of a gender perspective in negotiations and implementation of peace agreements (Article 8); Protection of rights of women and girls during and after armed conflicts (Articles 9 – 15), and Incorporation of a gender perspective in the UN analyses, reports, and processes (Articles 16-17).

The analysis of the situation regarding the implementation of Resolution 1325 in the Republic of Macedonia is based on the following documents: statistical indicators of the State Statistical Office presented in the publication "Women and Men in the

Republic of Macedonia" (5th edition, 2011), which presents data on the demographic features of women and men and their participation in individual areas; analysis of the implementation of Resolution 1325 of UN on Women, Peace and Security in the Republic of Macedonia – Identifying entry points for the development of a National Action Plan (UNWOMEN and MLSP 2011); the fourth and fifth periodical report on the Convention on Elimination of All Forms of Discrimination against Women (2011) and other relevant documents, and Analysis of primary and secondary sources of data related to the situation in the Republic of Macedonia with regard to the implementation of Resolution 1325.

We can conclude that part of the guidelines and obligations arising from Res. 1325 has been covered by the activities of the institutions completed so far (such as reduction of various forms of discrimination, illegal trafficking of women and children, sexual abuse and exploitation, domestic and other forms of violence) as part of the gender policy. Still, the part of Resolution 1325 regarding the role of women in peace and security remains underdeveloped in the strategic documents. The analysis of the past activities in this area indicates a need for additional awareness raising activities for the institutions, the governmental and non-government sector, as well as a need for development of a gender-sensitive policy in the field of peace and security.

The Law on Equal Opportunities of Women and Men (2012) establishes issues in the interest of equal opportunities, including also defence and security (Article 1 paragraph 2). The institutions covered by this provision, therefore, are to develop appropriate activities within their competencies, aimed at increased and efficient participation of women.

National Action Plan for the Implementation of UN Resolution 1325

Gender equality is one of the fundamental values of the constitutional order of the Republic of Macedonia, which is based on the full recognition and promotion of equal opportunities for women and men, as an essential prerequisite for sustainable development, exercising human rights, and application of democratic values. The role of women in all spheres of the Macedonian society is significant and important. Their active role in the creation and realization of the peace and security policy of the Republic of Macedonia is one of the important aspects of women's participation which will contribute to the adoption and implementation of a gender-sensitive policy, and will decrease gender inequality in the area of peace and security. The establishment of a gender-sensitive peace and security policy stems from the need to address the challenges and risks that undermine the position of women or marginalize their role in situations of crises and conflicts, post-conflict situations and in situations of peace building. The Republic of Macedonia, as a signatory state to the Convention on the Elimination of All Forms of Discrimination, following the Recommendation 10 on the definition of direct and indirect discrimination, has adopted the Law on Equal Opportunities of Men and

Women (Official Gazette of the Republic of Macedonia no.6/2012), the Article 3 of which envisages that:„discrimination, harassment, and sexual harassment on the basis of gender in the public and private sector shall be forbidden, more specifically in the areas of employment and labour, education, science and sport, social security, including the area of social protection, pension and disability insurance, health insurance and health care, judiciary and administration, housing, public information and the media, ICT, defence and security, membership and activity in trade unions, political parties, associations and foundations, other organizations based on membership, culture, and other areas designated by this or any other law. "

The Law on Equal Opportunities of Women and Men (2012) establishes issues in the interest of equal opportunities, including also defence and security (Article 1 paragraph 2). The institutions covered by this provision, therefore, are to develop appropriate activities within their competencies, aimed at increased and efficient participation of women. In cooperation with the countries in the region, the Republic of Macedonia made a contribution to the realization, promotion, and protection of human rights and women's rights, as well as to the strengthening of the role and participation of women related to peace and stability, strengthening of human security, creation of conditions for development and prosperity, reduction of gender inequalities, and elimination of conditions that contribute to gender discrimination.

The National Action Plan of the Republic of Macedonia for the implementation of UN Resolution 1325 on Women, Peace and Security, has been prepared as a result of the interests and priorities of the Republic of Macedonia to join the activities of the UN, EU, CoE, OSCE and NATO in this area in an efficient and comprehensive manner. The NAP was realized in the period 2013-2015. Annual operational plans have been prepared in order to enable efficient implementation, monitoring, and evaluation.

The NAP defined the political guidelines, principles, stakeholders, activities, strategies, indicators, monitoring, and evaluation, as well as financial implications for the implementation of the NAP. The implementation of the NAP primary was a responsibility of the Macedonian Government and all institutions defined by the Law on Equal Opportunities of Women and Men (2012). The Ministry of Labour and Social Policy, the Ministry of Foreign Affairs, the Ministry of the Interior, the Ministry of Defence and the Centre for Crisis Management are key institutions for the implementation of the NAP.

The implementation of the NAP included experts and representatives of the civil society.

In order to effectively implement the recommendations from Resolution1325 on Women, Peace and Security, the National Action Plan for implementation of Resolution1325 on Women, Peace and Security aimed to strengthen the gender perspective in the formulation and implementation of the peace, security and defence policy of the Republic of Macedonia and the participation and contribution of women to international, civilian, and military missions and prevent violence and protect

women's rights in the time of peace, conflict, and humanitarian disasters (National Action Plan, 2013).

The realization of these goals resulted in the greater representation of women in the security sector institutions and their participation in the decision-making process, incorporation of a gender-sensitive approach in the creation of a security policy based also on an integrated approach, particularly through reforms in the security sector; police; defence; crisis management; civil protection; integrated border management. Increasing the participation of women in politics and the activities of the Ohrid Framework Agreement Implementation Secretariat aimed at implementation of the Strategy for Equitable Representation of Communities not Representing Majority and the Action Plan, thus contributing to respect for the needs of women affected by peace building and conflict prevention; Intensified activity of the national and the local institutions to promote the importance of Resolution1325 on Women, Peace and Security, especially through the prevention committees and municipal councils as well as through their cooperation with the civil society, which will raise public awareness; Identification of the priority points of Res.1325 as short term and long term objectives within the NPA for GE and NPA for Implementation of Res.1325 by each institution; Identification of the capacities (human and financial) to implement Res.1325 of the security sector institutions; Creation of a single register of capacities for participation in civilian missions (institutional and human) and identification of the basic prerequisites, competencies, skills, and other criteria for participation in international missions in the field of peacekeeping operations and humanitarian missions; Establishment of a policy / strategy, principles, legal framework and priorities (in line with the international humanitarian law) for participation in civilian and military missions that are part of the Strategy for Conflict Prevention, Crisis Management and Peace Building, taking into account Res.1325, and a participatory approach (interdepartmental, departmental, national, local, international) in policymaking and implementation of Res.1325 (NAP,2013).

The Republic of Macedonia, as an active international actor, is committed to the implementation of the gender perspective in the foreign policy and the national security and defence policy by strengthening the active role of women and achieving gender equality.

Activities and Mechanisms for Inclusion of the Gender Perspective in the Defence System of the Republic of Macedonia

The establishment of equal opportunities for women and men is the responsibility of the entire society. The establishment of gender-conscious peace and security policy stems from the need to respond to the challenges and risks that hinder the position of women and marginalize their role in a state of crisis and conflict, post-conflict situations in conditions of building peace. Gender equality means fairness in the treatment of

men and women according to their needs. It is seen through the promotion of personal, social, cultural, political, and economic equality for all. Gender equality is a great and important benefit of society, which allows the use of the potential of each individual. That is why this issue has always been a priority of various agencies, organizations, and policies within the UN.

In Macedonia, the processes for inclusion of a gender perspective in all spheres of social life, including the defence sector have begun on time. The was facilitated by The Law on Equal Opportunities for Women and Men, the Law on Equal Opportunities for Men and Women, Official Gazette, No. 6/2012 13.1.2012), as well as the establishment of the Department for Equal Opportunities in the Ministry of Labour and Social Policy; designating coordinators for equal opportunities in the public institutions; increasing the number of women in the Parliament and creating a framework for the realization of the implementation of UN Resolution 1325.

The inclusion of gender issues in the defence systems is a necessity as to respond to the various security needs within the society. Defence systems must also be established as to successfully respond to the different security needs which may vary depending on factors such as gender, ethnicity, age, physical ability, economic status, religious determination, etc. Gender issues in the defence systems should also be included to create a prominent defence and security organization. Analyzes conducted in the defence area in several countries showed that women are underrepresented in the army, managerial positions in the defence sector, command duties, i.e. all decision-making posts and supervising bodies across the defence system. Although there are no formal obstacles, often in practice there are certain levels to which women can make a career progress in the defence segment. Full integration of women in the defence and the armed forces leads to the maximum capacity of the army to exercise its role of protecting the democratic society and its core values (The Position of Women in the Armed Forces in the Western Balkans, 2014).

The Ministry of Defence of the Republic of Macedonia continuously undertakes various activities and commitments regarding gender equality and gender perspective in the defence sector, including the gender perspective in the defence policy in order to create conditions for equal opportunities for women and men to carry out their tasks and duties, and implement the guidelines of Resolution 1325 of the UN Security Council. The Ministry of Defence and the Armed Forces of the Republic of Macedonia have been involved in the implementation of Resolution 1325 "Women, peace and security" and other related resolutions. Macedonia was included in the regional project of the United Nations to strengthen the implementation of Resolution 1325 of the Security Council of the United Nations on women, peace and security in the Western Balkans (2011/2013) by participation with local experts, NGOs, and representatives of public institutions. An action plan was developed for the full implementation of UNSCR 1325 and related international legislation in this area. Given that the Ministry of Defence is responsible for the strategic section of the National Action Plan for Gender Equality

"Women, Peace and Security," a Memorandum of Understanding with the Ministry of Labour and Social Policy was signed for a joint participation in the preparation of this document. In January 2013, an Action Plan for implementation of Resolution 1325 was adopted by the Parliament of the Republic of Macedonia (arhiva.vlada.mk/registar/?q=node/458).

All this has contributed to the strengthening of the activities in several organizational units of the Ministry of Defence and the Armed Forces of the Republic of Macedonia in order to integrate the gender equality and gender perspective in the defence sector. They constantly strive to develop measures and activities, in accordance with the strategic defence purposes and respecting the obligations arising from the provisions of the Law on Equal Opportunities for Women and Men, and constantly promote the principle of establishing equal opportunities for women and men in all organizational units and forms, and also undertake to carry out all the necessary measures and activities for the successful development of the principle of equal opportunities for women and men, measures that ensure equal treatment in employment, promotion, insurance, working conditions, working hours, thus providing employment which completely prevents granting privileges to certain groups, or their members.

The implementation of the policy of equal opportunities for women and men in the Ministry of Defence and the Armed Forces of the Republic of Macedonia is realized by promoting the principle of introducing equal participation of women and men in all structures of personnel and decision making. This means that women and men have an equal status and treatment in performing official duties, equal rights for all, and equal access to all; relevant criteria for a qualitative selection, and training of staff that will ensure a maximum applicability and operational efficiency in order to employ, retain and promote the most capable individuals in the structures of the Ministry of Defence and the Armed Forces of the Republic Macedonia.

In recent years, the Ministry of Defence and the ARM as institutions, which constitute the most vital part of the defence and security system of the country, have established themselves as fully open with respect to the access of women. The careful building of modern standards and equality between the sexes, speaks in favour of the opportunity for the women to build a professional military career in the ARM, and become not only part of the logistics and services segment of the ARM, but also part of the army combat units.

During 2012, the Ministry of Defence established a Committee for gender equality and gender perspective in defence, which included representatives from the Armed Forces of the Republic of Macedonia and the Ministry of Defence. This Committee was tasked to update the 2009 ARM and MoD Programme on equal opportunities for women and men, to prepare an analysis of the representation of women in the defence, and many other tasks and responsibilities. In fact, these are obligations arising from the partnership with NATO, resulting in the preparation of the Action Plan for the implementation of Resolution 1325 by supporting the plans and

activities of the partner countries. In this regard, we have signed the Memorandum of Cooperation between the Ministry of Defence and UN WOMEN, responsible for the Regional Project for implementation of Resolution 1325 in the Western Balkans, and supporters of the decision for adopting the National Action Plan for Implementation Resolution 1325 and the subsequent relevant documents of the United Nations in the Republic of Macedonia.

One of the commitments arising from the Committee on gender equality and gender perspective in the area of defence was to organize, on behalf of the Ministry of Defence, an international scientific conference on gender equality and gender perspective in the defence, which was held in Skopje in April 2013. A decision was taken to organize a conference as a platform for constructive discussions and debates to improve the situation regarding the problems and stereotypes related to gender equality in the defence and security sector as traditionally "male" fields of action, and to promote gender equality.

In the past years, the Ministry of Defence and the Armed Forces of the Republic of Macedonia have educated 14 certificated NATO trainers on gender issues, and they have organized great number of training sessions for the personnel of the Armed Forces and MoD. The overall aim of the training and education on gender issues in the defence system is primarily to understand the different roles and needs of men and women in the society. The other objectives are to enable identification of biased, discriminatory behaviour, and inequality arising from the organizational or social set up, and to enable application of that awareness in everyday tasks in the military system. For the members of the Armed Forces of the Republic of Macedonia, the training modules on gender equality encompass the following topics: definitions of basic concepts (sex and gender, gender roles, etc.); identification of gender stereotypes, prejudice and various forms of discrimination that will enable the course participants to recognize them in their working environment. An important part of the training is to enable understanding of various existing international and national policies on gender issues. To understand that the United Nation Resolution 1325 on Women, Peace and Security, as well as other relevant resolutions, were adopted with an objective to protect women and girls as the biggest victims in modern conflicts and to improve the role of women in post conflict reconstruction and peace keeping, especially for the military staff preparing for missions abroad.

Furthermore, the media have a great influence for promoting gender issues within the Ministry of Defence and the Armed Forces of the Republic of Macedonia, and beyond. The official web portal of MoD provides information regarding gender equality and the gender perspective on a daily basis. A number of articles on gender issues were printed in magazine "Shield" of the Ministry of Defence. This sought to emphasize that the articles aimed at promoting gender equality also intended to publicize the activities undertaken by the Armed Forces and MoD; at informing about projects, training conducted by certified trainers, etc.; at expanding the horizons on

gender equality and gender perspective through its educational content. In addition, it endeavoured to focus attention on political and international jurisprudence through interviews with eminent figures, diplomats, et al on gender equality and the gender perspective in the defence sector; contribute to attracting quality staff by posting interesting articles and other reports on female members of the Armed Forces of the Republic of Macedonia.

A review of data on the share of women in the Armed Forces from 2009 to 2015 demonstrates a slow but sure increase in female representation. This increase is also reflected in the number of women holding managerial positions. Thus, in 2009, women accounted for only 5.5% of all Armed Forces staff: 7.9% of them were officers, 11.3% were NCOs, and 2.3% were professional soldiers. In 2009, the figures were as follows: only 376 of all Armed Forces personnel were women: 90 were officers, 197 NCOs, and only 89 professional soldiers. The highest ranking female officer was a Lieutenant Colonel.

This paper will not deal with the proportional increase in the number of women in the past period, but it will provide data on female representation at the end of 2015.

Statistics show that women accounted for 9.20% of all ARM staff in 2015: 11.48% were officers, 12.34% NCOs, and 3.49% professional soldiers. Expressed in figures, 99 officers, 184 non-commissioned officers, and 128 professional soldiers are women, and the highest ranking female officer holds the rank of Colonel. The number of female lieutenants, majors and captains has also increased. In 2015, the first woman was promoted to the rank of Colonel and appointed as a battalion commander.

The statistics for the MoD of the Republic of Macedonia are similar. The number of women holding managerial positions at the MoD has increased proportionally. Hence, as opposed to 2009, when there was only one woman state advisor and no women as heads of MoD departments, the MoD today has

a female Undersecretary of State, three female state advisors, and two female heads of department. This shows that in the recent years, the ARM and MoD have been paying particular attention to the integration of gender equality principles, while slowly changing both the Armed Forces and the general public's attitudes and perceptions of the Armed Forces as an institution primarily engaged in warfare, to that of an structure aimed at building peace and security.

Conclusion

According to gender stereotypes, men and women differ in their psychological characteristics relevant for achieving success in the military profession (Boldry,Wood&Kashy, 2001). This discrepancy between the stereotypical characteristics of women and the desired characteristics for the role of a soldier can produce negative effects not only in the process of: selection, classification, performance appraisal, and promotion, but also in the self-assessment of possessing desirable skills to perform a certain type of work.

The equal opportunities of women and men in the Republic of Macedonia are regulated by

the Constitution as the highest legal act, but also by a large number of laws in which provisions have been introduced prohibiting discrimination based on gender, and provisions incorporating the concept of gender in the domestic legislation. Thus, Article 1 paragraph 2 of the Law on Equal Opportunities of Women and Men (Official Gazette *no.6/2012 from 13.1.2012*) regulates issues related to equal opportunities, among which also the issues of defence and security.

The Security Sector Reform in the Republic of Macedonia is one of the key aspects of the process of democratisation. While early efforts focused on the introduction of democratic and civilian oversight of the security sector, the Republic of Macedonia is increasingly facing the challenge of building modern armed forces in line with its strategic priorities and financial capacities. A crucial component of this process is the transition from a recruit force to an all volunteer force involving the professionalization of the military. Such circumstances paved the way for a more consistent and effective introduction of the gender perspective in the defence system.

The Ministry of Defence is in charge of the strategic area of women, peace and security in the Gender Equality National Action Plan of the Republic of Macedonia, which was adopted in January 2013. In this regard, the Ministry of Defence in the course of the past years has undertaken a number of activities and commitments on gender equality and gender perspective in the defence, including the gender perspective in the defence policy, in order to create conditions for equal opportunities for women and men in carrying out their responsibilities, and to implement the guidelines of Resolution 1325 of the UN Security Council. In the past period the Ministry of Defence and the Armed Forces of the Republic of Macedonia invested a lot of efforts in the field of implementation of NAP in each segment of the defence policy.

They established equality in the decision-making process, the strategic goal of which is participation of women and men at all levels of decision-making through the implementation of Resolution 1325 UNSC - Women, Peace and Security. They integrated a gender perspective in the training of personnel in the Ministry of Defence and the Armed Forces concerning Resolution 1325 UNSC and Training on gender-based violence, improving the database on the presence of women and men in the Armed Forces, promoting greater involvement of women in the Armed Forces, with special emphasis on training of military contingents' members, participating in international missions and operations.

MoD and the Armed Forces have a good cooperation with the governmental and non-governmental organizations in the country and abroad regarding the promotion of the principles of equality, sharing and gaining enhanced experiences with them. The Ministry of Defence and ARM constantly promote gender issues through their media.

For the general analysis of gender representation in the Macedonian Armed Forces and the MoD, we can conclude that the Armed Forces are a big step in terms of reducing gender discrimination in the military sphere, that the formal equality of men and women is satisfactory and equality is implemented in practice.

However, we can also conclude that there the number of women in the military is still insufficient, especially in command and leadership positions. Special health care programs for women in the Armed Forces have not been prepared yet. To achieve this, the Ministry of Defence of the Republic of Macedonia is reviewing and improving its human resources policies with a view of ensuring that career progression for women in the armed forces is improved. The possibilities of acting on these grounds are not only aimed at raising awareness of the need for integration and observance of all gender equality aspects in the defence system. It is necessary to strictly comply with the selection criteria, promptly inform young people interested in the military profession, and thus ensure adequately motivated personnel for education. In addi-

tion, it is also essential to implement career guidance, make the system more sensitive to all kinds of problems that occur and prepared for finding adequate solutions. It is also required to operationalize the competences of certain system components and delegate responsibility in the areas where necessary, provide means of gender budgeting, promote coordinated action of institutions, foster an active approach to the media in raising awareness of military opinion and systematic work on the interiorization of values. In addition, a responsible role of the whole community is vital in promoting human rights and gender equality values.

REFERENCES:

1.Boldry, J., Wood, W. & Kashy, D.A.(2001). Gender Stereotypes and the Evaluation of Men and Women in Military Training, *Journal of Social Issues,* 57 (4), 689–705.

2.Barrow, A., *UN Security Council Resolutions 1325 and 1820:Constructing Gender in Armed Conflict and International Law,* IRRC,Geneva, Vol. 92, Number 877, (2010).

3. Beijing Declaration and Platform for Action (1995). Available at: http/www.un.org/woman-watch/daw/ Beijing/platform/declar.htm

4.DCAF Backgrounder, Gender and Security Sector Reform, 10.2009.

5.. Gya, G. (2007). The Improtance of Gender in ESDP*, European Security Review,* N34.

6. *International Humanitarian Law and Gender,* Report Summary. International Expert Meeting: 'Gender Perspectives on International Humanitarian Law', Stockholm, October 4–5, 2007.

7.Law for Prevention and Protection from Discrimination, Official Gazette of the Republic of Macedonia, No. 50 from 13.04.2010

8.Memorandum for Understanding between UN Women and Ministry of Defence of the Republic of Macedonia, 23.04.2013 Skopje

9.National Action Plan of the Republic of Macedonia for Implementation of the UN Resolution 1325, Skopje, 2012

10.Петровић Д. (2007) *Већапартиципација жена у војсци као израз равноправности полова* у Жене у војсци (in Serb)Зборник радова са међународнеконференције, Београд, Институтза стратегијска истраживања.

11.Programme on Equal Opportunities for Men and Women in the Ministry of Defense and the Army of the Republic of Macedonia,

12. Resolution 1820, Resolution 1888 and 1889

13.Resolution 1325, 2000

14.The Position of Women in the Armed Forces in the Western Balkans, UNDP SEESAC,2014

15. The Geneva Conventions,1949 and Additional Protocols ,1977

16. United Nations (1992).An Agenda for Peace: Preventive Diplomacy, Peacemaking and Peace-keeping. Report of the Secretary- General, United Nations GA and SC, A/47/277, S/24111. New York: United Nations.

http://www.unwomen.org/en

http://www.nato.int/nato_static/assets/pdf/pdf_2014_06/20140626_140626-wps-action-plan.pdf

355.45-022.326.5: 325.254 – 012-326.5(497)

Scientific article

BRIEF REVIEW OF THE GEOPOLITICAL SITUATION IN THE REGION WITH A SPECIAL EMPHASIS ON THE SECURITY THREATS AND MIGRANT CRISIS

Muhamet RACAJ[1]

Abstract: *The purpose of this paper is to give a brief overview of the geopolitical situation in the region of Southeast Europe, particularly in the region of the Balkan Peninsula and the interests, and influence of some great powers in this area. In the context of security threats to the region, several types of possible security threats to the region will be discussed and elaborated, such as terrorism, the presence of foreign fighters from the crisis regions, transnational organized crime, etc. A special focus will be given on the analysis of the large migrant crisis the region is facing, and the possible security implications thereof. A special part of the paper will elaborate on the situation with the migrant crisis in the Republic of Macedonia. Conclusions regarding this paper's subject will be presented at the end.*

Kay words: *geopolitics, security, asymmetric threats, migrant crisis*

Introduction

Apart from Serbia, which aspires only for membership in the EU, the other countries in the region are deeply involved in the processes of transformation and democratization for EU and NATO membership. The current reforms contribute to the improvement of the security situation in the region. The international political and financial support improves the stabilization of the development processes of the countries in the region. The economic support of Russia to Serbia and the Republic of Srpska, as well as the economic impact in Bulgaria have also resulted in a positive trend, giving the opportunity of choice, but only from an economic aspect. The regional cooperation, particularly in the defense sector is improving, but somehow ignoring Kosovo and Bosnia, because they are still considered unstable.

There is maximum investment in the democratic processes of the Anglo-American exponents versus Russian political and military interests in the region. The situation in the region can be defined as dynamic because of some global and regional issues which directly or indirectly have a negative impact on some regional security issues. The socio-economic crisis in the countries is also a negative trend in terms of the security in the region. There is a weak economic growth in the region and a high unemployment rate, which is common for all Balkan

---

[1]   The Author, PhD, major-general, Armed Forces of the Republic of Macedonia

countries; and a high rate of economic migration to Western Europe. The negative trends in terms of ethnic and religious differences are evident from the tendency of ethno-nationalist groups continuing to propagate ethnic hatred, which widens the ethnic division.

The instability in the Middle East and North Africa continuously strengthen the influence of extremist organizations, organized crime, and illegal migration in the region, which have a negative impact on the security in the region.

Open bilateral issues between countries in the region are considered negative trends in the security environment in the region. Considering all the challenges and interests, the regional players, exponents of global players - US, Russia and China, want to push their national interests, which are closely associated with the environment of the Republic Macedonia.

These factors, in some cases can cause low-level violence, and are a constant challenge to the security situation. Often the low intensity can rise to a strong macementum, but only if it is allowed by the global and corporate organizations.

Interests and Influence of the Big Powers in the Balkans

The relations between the US and Russia, from a historical point of you view, started hundred years ago, when Russia led by its own interests strongly influenced some processes in the region, and at that time the United States had not yet been the dominant world power. EU is a dominant actor in the Balkan region today, but not in the military sense, mostly through its powerful economic dimension, which is in the focus of the Russian-American relations. The Union is an area for economic development, but also an area military dominated by the US, whereas Russia is only a consumer of the new technologies produced and found in the EU, for its own development and exploitation of the powerful energy resources.

EU's only economic interest in the Balkans is communications and transportation. EU is an economic giant, but is completely disabled, "sick" of the national interests of its members. When EU's interests endangered, it asks for help from the US or Russia, a service it financially compensates in a different form of financial exchange.

Turkey as a traditional player in the Balkan region is facing many new challenges; it is losing its flexibility and is becoming slow and clumsy, and in this context it is dominated by the warm-cold relations with Russia. They are trying to change Ataturk's idea, risking the possibility of getting lost in the unknown. The US considers this as an unstable move by Turkey and suggests that such developments could lead to its destabilization. Time will show whether Turkey has the capacity to be the "balance" in the region.

The Austro-Hungarian interests appear to be direct in the region, especially with the emergence of the migrant crisis. They are giving a clear signal that their national interests are being protected at the mainland, on the mere coast, South and South East Europe. It is a new surprise on the European security landscape, which rises over and obstructs the German economic interests. Austria is implementing a new policy, a policy

of a peninsular state, acting as if it were not a landlocked country. It is a phenomenon for consideration, and influence in the area of the Balkans. The big Balkan countries have recognized this, and reenact moves from 100 years ago.

In the new millennium, China entered the region through infrastructure, and is often bundled with Russia as a new combined force, not recognizing or skillfully playing with the EU borders and NATO interests.

The UK is the latest enigma which will strongly affect the region. The UK shows that it will play the role of "eternal interests," well known in the region. Time will show if it will be so. For now, the "eternal interests" remain, and are modulated in the context of the emergence of the two entities in the area, Macedonia and Kosovo, in relation to Serbia (which is economically weakened), in different historical contexts.

The Republic of Macedonia can be considered in terms of security in the context of the Anglo-American influence in this area, whereas the lessons learned from our history can confirm this, for example the Thessaloniki Front in World War I, World War II, and the interests of Great Britain regarding Thessaloniki, the civil war in Greece, etc.

Macedonia needs to find its place as a key entity in this phenomenon and to benefit from all geopolitical and security dimensions in the region, becoming an interesting continental country, economically strong country with strong diplomacy.

Asymmetric Security Threats for the Region

The Balkan countries share many common security challenges that can affect the integral security in the region. Regarding terrorism, as the most dangerous asymmetric threat, it should be emphasized that the possibility of terrorist attacks in the region cannot be disregarded. The region remains an important logistics base, and a transit route for terrorists and extremists to Central Europe, as well as to crisis areas with the intention to carry out terrorist acts or recruit new fighters; the region also serves as their shelter.

The involvement of foreign fighters from this region in the conflict areas can also be seen as an opportunity for a security breach in the region. From that perspective, there are several possible factors that may affect the security situation in the countries of origin of these fighters during their involvement in conflicts. Upon their return, it is likely that they will engage in spreading extremist beliefs, recruit new members, and engage in illegal training of new fighters. It is likely that they will also provide logistic support to other foreign extremist elements they had encountered in conflict regions.

Extremism, religious or national, is still active in the region in the form of separatist groups or movements. Political differences in certain countries are factors for continuation of extremist activities. These groups are determined to impose radical religious and ideological beliefs and as such they pose a risk to the security of certain countries.

Transnational organized crime is an asymmetric threat defined as a permanent security threat to the region; combined with the wishes of some of the regional leaders

for personal profit, using the tools of the state, above all the subtle-secret services. The real challenge is to prevent political leaders from committing this abuse. Transnational organized crime continues to spread its influence, whereas the implications of these activities are felt by all countries in the region. The movement of migrants from the Middle East, parts of North Africa, and Asia continues to impact the Balkan region. There is an increased risk of infiltration of militants and criminals in the countries of the region, which will be a challenging security situation in the future.

The Migrant Crisis and Its Impact on the Region

The European migrant or refugee crisis is an expression of a number of incidents, or series of events associated with the mass arrival of refugees. Europe is facing major problems in dealing with hundreds of thousands of refugees fleeing from the war affected areas in the Middle East and North Africa, seeking asylum in European countries. The Protection Agency within the European Union - Frontex registered 1.55 million illegal crossings of the borders of the European Union in 2015.[2]

The migrant crisis is posing a challenge to all of Europe, but particularly to the continent's smaller countries where economies are being strained and capacities overstretched. There is a real danger that such pressure could lead to a violent backlash against the migrants and test ties between the indigenous Muslim and Christian populations of the region.[3]

The main reason for the current migration to the EU is the pursuit of prosperity, while the main causes are: the breach of security and stability in the regions of the Middle East and North Africa; the existence of double standards in the international world order; loss of perspective for a better tomorrow for the youth in the domestic countries; collar soft power of the EU (especially Germany, France, Sweden, and the UK). According to the statistics, since the beginning of the wars and instability, around 60 million people have been forced to leave their homes. Refugees and migrants, heading to EU countries, originate primarily from Syria but also from Afghanistan, Iraq, Somalia, Nigeria, Sudan, and Eritrea. From 2011 up until today, 4 million people have left Syria, which is one-fifth of its population. This has been caused by the rule of Bashar al-Assad, and the brutality of terrorist organizations ISIL and "Jabdzhat al-Nusra."

Germany, France and Sweden are the most attractive countries for the refugees, primarily because they have a developed welfare system. In the first four months of 2015, about 242,000 asylum applications were submitted in EU countries, which is 80 percent more than the same period the previous year. The majority of the asylum seekers are men aged 18 to 34 years, but there is also an increase of the number of minors who are asylum seekers. In addition, Syrians and Kosovars represent 40 percent of the total number of the asylum seekers in that period.

---

[2] https://hr.wikipeia.org/
[3] Ariel Cohen, DinuPatriciuEuroasia Center – Atlantic Council, 27 January 2016.

In terms of how refugees are reaching the EU countries, statistics show that about 219,000 people have passed through Turkey's Mediterranean and arrived to Spain and Italy. Furthermore, the refugees are moving through the Western Balkan countries (Greece, Macedonia, Serbia). According to the International Organization for Migration, in 2014, about 3,200 people died in the Mediterranean waters, and in the first half of 2015 their number was around 2,500 people. Winter will bring an increased number of deaths due to deteriorating conditions for sailing in the Aegean Sea. Germany as a powerful economic force, regardless of the risks, undoubtedly recognized the economic benefits and thus directed migrants through the Balkans, aware that they will pass through a filter, and after that it would make an additional selection of the necessary human resources, i.e. cheap labour. Realistically, Germany considers the stability in the Balkans only through the relative stability of communications, driven by self-interest. The occurrence of double standards is connected with: the aggravated socio-economic situation; the current illegal migration crisis poses a threat to the socio-economic stability and internal security; social - threats to national identity; economic - additional costs for institutions.

The massive influx of refugees and migrants in the Balkans, used as a route for entry into the EU through its members on the periphery, such as Greece and Croatia, did not bypass Macedonia and Serbia, as candidate countries for EU accession. Greece's failure to fulfil its obligations to secure the borders of the Schengen zone is in stark contrast to the role played by Macedonia to cope with the influx of hundreds of thousands migrants fleeing war zones.

According to security experts from the United States, who visited the region, the security of the Greek-Macedonian border is the key for managing of the migrant crisis. If this is not realized, the Schengen regime, a great achievement of the EU, will face suspension. This will have serious consequences for the future of the EU.

More than 750,000 migrants moved through Macedonia last year. Macedonia, with some help from Albania, Slovenia, and other neighbours, has received, fed, provided medical assistance to, and processed these migrants. Brussels, Berlin, and Washington need to do all they can to help countries such as Macedonia cope with this challenge.[4]

The Syrian migrant crisis has affected the overall situation of the countries in the region, including the Republic of Macedonia. The security instability in the Middle East and North Africa, the military activities in Syria, the lost hope of the young population, and the interventions by several countries are the main causes of mass migration of the population. The current migrant crisis has a multidimensional effect on the countries in the region. From a social point of view, there is a real threat to the national identity, which is likely to increase nationalism, racism, and xenophobia. This is likely to lead to social disintegration of migrants in the countries which have accepted a larger

---

[4] Ariel Cohen, DinuPatriciuEuroasia Center – Atlantic Council, 27 January 2016.

number of migrants. The migrant crisis will cause additional costs for medical care, transportation, etc. The refugee and migrant crisis poses a threat in many aspects, and has an impact on the economic and social stability, as well as on the security of the countries that migrants cross or remain in, including the Republic of Macedonia. The busiest Western Balkan route used to reach the Schengen area, i.e. Germany, Sweden, and other western and Nordic countries, brings negative influence in the social aspect, but it is also a real threat to national identity (culture, language, religion), and such threats will inevitably lead to an increased incidence of xenophobia, nationalism, and racism. Finally, it will create conditions for the emergence of social disintegration in the states in which migrants pass through or remain. Economic stability, as the key to social stability and internal security, can be threatened by spending additional resources and facilities (accommodation, health, utilities, transport, and education) that the concerned countries need to provide and make operational because of the new situation.

Although the migration started seemingly spontaneously, it can be concluded that it was a planned and organized transport route through the Western Balkans, including Macedonia. The abovementioned is confirmed by the following facts: telephone guidance at border crossings; persons in charge of migrants who appear several times in the trains transporting migrants en route Tabanovce-Gevgelija and vice versa; marking trails of passing (plastic bottles and textile); the existence of places where migrants pay for making fake IDs, and selling fake passports in Greece; offering bribe to the members of the Armed Forces and the Interior Ministry, in order to accelerate and facilitate transit through Macedonia; there is unconfirmed information that transportation is funded, and the funds are obtained at several locations in Turkey and Serbia.

Greece, as the first EU state, directs refugees and migrants exclusively towards Macedonia with precise instructions on how to continue the road to some of the EU countries. At the beginning of the crisis, between 2 and 3 thousand refugees arrived or were transported on a daily basis at the southern border of Macedonia. That figure rose steadily. The average number of foreign nationals who were transported or let though at border stone 59 is about 4,000 people per day, or 120 thousand per month. Greece, besides transportation of migrants to Macedonia, additionally cleaned its territory from illegal migrants, who have been staying on its territory for a while.

Bulgaria, despite having a wire fence on its border with Turkey, introduced additional measures by placing the armed forces as support to the border police in order to better control the border line. According to the findings, the authorities in Sofia were optimistic that the refugee crisis will not be directed to their country, because they have no free transit corridor and borders are kept very strictly, and they also consistently conduct checks in the country. On the other hand, they were preparing the ground with the proper rhetoric, warning about how difficult it is for them requiring help from the EU for Bulgaria. Bulgaria has made efforts to deter refugees through various outreach programs.

Serbia is trying to present itself as the most humane country in the region, and

to a great extent succeeds in this endeavour. The success is evident through the support amongst migrants, but also by the support from the western media, which have hardly expressed any criticism regarding the manner in which Serbian authorities deal with the crisis. In support of Serbia's success is the presentation of the "neighbours' failures ", which are presented in the Serbian media, but in some of the Western media, too. In the camps in Presevo and Kaljizha, they primarily maintain peace and order, and the pace of transported migrants, while their registration and identification is a secondary task. Serbian authorities unofficially estimate that in the last six months about 400 thousand people transited through their territory.

The situation in Croatia escalated after September 15; when Hungary closed the border with Serbia. The Croatian police clashed with massive groups of migrants, who were prevented from entering the newly established shelter for registration of refugees seeking asylum in Europe. The refugees and migrants arrived in Croatia by organized transportation by buses from Serbia. As a safeguard against the large wave of refugees, Croatia closed the border crossing Batrovci, thus creating tension and countermeasures regarding the relation Serbia – Croatia. Furthermore, besides the interstate level, there was an obvious attempt in Croatia to use the migrant crisis for obtaining daily political points.

At the moment, the situation in Macedonia is safe and stable. The border crossings with Greece and Serbia are open and there is no unexpected delay. Parts of the border, where transit of illegal migrants is observed are held under tight control of the security forces, ensuring optimal and smooth transition, according to the national and international legal norms and charters for the protection of human rights. In partnership with the national authorities, the Red Cross of Macedonia, UNHCR, and numerous other organizations, the Republic of Macedonia, within the possible capabilities, provides a humane treatment for illegal migrants. The increased control of the security forces on the border with Greece and Serbia is in accordance with the decision of the Government to declare a crisis situation on these border lines, due to the increased influx of illegal migrants and the need to maintain peace and stability in the national framework. The Foreign Ministry officially informed Greece and the Republic of Serbia, and other countries worldwide through its diplomatic offices regarding this issue.

The Republic of Macedonia has taken a series of steps and measures in addressing this global problem. The Law on Asylum was amended, which allows migrants to decide whether to apply for asylum or leave the territory of the Republic of Macedonia in a period of 72 hours. Two temporary protection points were established, aiming to provide assistance to migrants in Gevgelija and Tabanovce. Meanwhile, vulnerable migrants are temporarily accommodated in the reception centre for asylum seekers in Vizbegovo, near Skopje. There is also consideration in terms of opening a Center for migrants. The inter- ministerial body composed of the ministers of Foreign Affairs, Defence, Interior, Local Government, Health, and Labour and Social Policy was founded in June. This body meets regularly in order to monitor the development of the

situation of migrants and takes appropriate actions. In July, an Action Plan was adopted on the measures for resolving the situation with the increased influx of migrants. The Macedonian security forces are regularly active on the field to control and suppress groups conducting illegal activities related to the transfer of migrants.

According to the Ministry of Interior, upon the amendments to the Law on Asylum were made, they issued certificates to a total number of 41,414 foreign nationals. According to the nationality of the persons who the certificates were issued to, the majority are citizens of Syria-33,461, then Afghanistan- 2,073, Iraq-1,947, Pakistan-1,198, Somalia-561, Palestine-560, Congo-301, Bangladesh-230, Nigeria- 142, Cameroon-140,Eritrea-140, Ethiopia-109, and a smaller number of other nationalities. In the middle of 2015, the daily influx of illegal migrants is estimated to have exceeded the figure of 4,000, which was not the case in the beginning of the migrant crisis, when the daily influx reached the figure of about 600. This number, as of the beginning of 2016, was relatively decreased due to winter conditions, unfavourable for the migrants. The continual increasing of the number of illegal migrants on the territory of the country was communicated by the Republic of Macedonia to the international community on a regular basis, stressing the need for aid in improving the limited capacity to deal with the migrant influx and improving the cooperation with the other countries regarding border policy and border control. We also communicate with our neighbours, the EU, and the UN, because Macedonia is only one of the destinations on the migrant route.

Possible Consequences for Macedonia from the Re-escalation of the Migrant Crisis

Macedonia is a State Party to the 1951 Convention and its Protocol of 1967. The Law on Asylum, adopted in 2003, incorporates the provisions of the 1951 Convention and 1967 Protocol in its national law, including the definition of a refugee, cessation clauses, to the exclusion clauses and the principle of non-refoulement.[5] The 1951 Convention and 1967 Protocol remain the foundation of the international protection regime and should be fully respected when applying "subsidiary" or "complementary" forms of protection. In addition to the general principles of the international refugee law, in light of the current status of the Republic of Macedonia as a candidate country for EU membership and its efforts to incorporate the European legislative instruments into the national legislation, it is appropriate to refer to the legislative framework and general principles of the EU for asylum.

The figures show that over 6,500,000 people are registered as displaced, refugees, with the Western European countries as the end destination. Syrian refugees,

---

[5] Член *33* на Конвенцијата од *1951:* Ниедна земја договорничка нема да протера или со сила да врати *("refouler")* на било каков начин бегалец на граници на територии каде неговиот *(*или нејзиниот*)* живот или слобода би биле загрозени врз основа на неговите *(*или нејзините*)* раса, вера, националност, припадност на одредена социјална група или политичко уверување.

interviewed in Lebanon, and Jordan, have indicated sexual violence as one of the main reasons for leaving Syria. The Republic of Macedonia is on the itinerary of migrants-refugees, who travel from Syria via Turkey, Bulgaria and Greece to Western European countries. Some of the migrants are using Macedonia only as a transit route on their way to European countries. However, the number of those who decide to stay and seek asylum in Macedonia is growing. At the beginning, the refugee problem would be an additional burden on the economy of our country. The increasing xenophobia would be the other issue causing general discomfort to the society. Growing tensions would result into the fear of crime. The theft of food, clothes, and other necessary resources would occur, too. In such conditions, the criminal activity such as human trafficking could not be excluded. If we take into consideration the example of the Syrian refugees in Lebanon, producing hashish for a living, drug trafficking could not be excluded as well. In Syria, thefts of antiquities from 6 museums were reported, which means that there is a possibility that precisely these people possess them, and thus in case of need they would start illegal trade in cultural property.[6]

If we make a deeper analysis of the consequences, we must also take into consideration the Syrian outbreak of polio. Polio is transmitted through contaminated food or water, and an outbreak among children in Syria was confirmed, where the disease had not occurred in 14 years. According to the World Health Organization (WHO), the disease was probably spread from Pakistan, one of the three countries where it is endemic, and there is a warning that Syria could become a threat to millions of children in the Middle East. Polio can be easily spread from person to person, and quickly spread among children, particularly in unsanitary conditions, such as in Syria nowadays, where millions of people are affected by the 4-year war, as well as in crowded refugee camps in neighbouring countries. An escalation, i.e. a new wave of refugees from Syria would be a threat to progress, and would hinder Macedonia's path to EU and NATO.[7]

The migrant crisis also has an impact on the security in the region in other contexts. The historical ambitions of Macedonia's neighbours for the area of Vardar Macedonia began to be mentioned, seeking for their opportunity. It is no secret that the borders are closing because of the migrants; however, there are certain strong military structures along the Macedonian borders. This seems like repeating of some 100-year old stories. The well-known rhetoric is already being used in some neighbourhoods.

Conclusion

Generally, in terms of the geopolitics of the great powers concerning the region, we can conclude that it is necessary for the United States, along with the EU, and the United Nations to become more involved as soon as possible, and to ensure the necessary support and assistance to the Balkans, particularly in dealing with the consequences of the migrant crisis,

---

[6] http://www.utrinski.mk/default.asp?ItemID=0944212C2DD1CA47BFF298BEC6C8E414
[7] Ariel Cohen, Dinu Patriciu Euroasia Center – Atlantic Council, 27 January 2016.

and the security challenges it brings. In the longer run, Washington and Brussels must facilitate the aspiration of Macedonia and other countries for EU and NATO membership. Macedonia is ready to cooperate with the institutions and the Member States of the European Union in supporting the further development of measures to tackle this global problem. In this situation, the Republic of Macedonia must be responsible, control the borders, carry out registration of migrants due to the national and European regulations and the international law, must maintain good foreign and diplomatic relations with its neighbours.

Although the security situation in the region is stable, there are some sensitive indicators of possible security threats in the form of violence, enabling transnational crime, which is influenced by the regional political leaders.

The increasing extremism, organized crime, and illegal migration in the region are security threats that may affect the security environment; however, greater destabilization of the region is possible if global players encourage their regional residents-countries, led by their regional national interests, to the detriment of the Republic of Macedonia.

The international community is a factor of stability in the region, and the presence of destabilizing factors shows the necessity of its further presence. That is one point. However, will the countries in the region be able to institutionally withstand the long and endless geostrategic games in the region and for how long, will this lead to exhaustion from several aspects, such as demographic and economic !?

The concentric circles of security threats suggest the need for further analysis of the possible impacts on the security of the Republic of Macedonia and the Balkans, to the extent possible having in mind today's perspective of the notion of security. Considering the spiralling process of globalization, social development, and the need for a sense of security, in terms of understanding and prevention of the new risks and threats, besides the open issues, there is certainly a series of new issues, regarding which the state should find theories on tackling issues as well as modes for the solution thereof.

Security is neither a permanently established and constantly sustainable factor for development of the country, nor is it inherited and transmitted factor for survival of the state in a globalized world.

Although in the long run, there is no danger of conventional war in Europe, the dissolution of the bipolar world, relapses and consequences of the disintegration of certain former socialist countries, the negative consequences of globalization, national, religious, great-and territorial confrontation –are potential and real risks and hazards that can lead to crises and conflicts.[8]

The region of the Balkans retains something invisible at first glance to many "experts" - a large and dangerous threat that will endanger the security and stability for a long time in the Balkans, and beyond, in Europe. It is perhaps the most invisible part of a major "terrorist iceberg" as sent from the Middle East towards the Balkans and Europe, even before the start of the conflicts in the Balkans. Neither the Balkan countries, nor the major European powers have seriously taken the threat of a new growing security threat, which will find the most serious support and leverage precisely in the post-conflict societies in the Balkans. Years of warfare in the former Yugoslavia inevitably radicalized many Islamic movements in the Balkan region. That paved the way for the creation of new, tight connections and scope for further cooperation between the Balkan terrorist organizations and various terrorist organizations in the Middle East. The installation and expansion of militant Islamic fundamentalism, primarily in Bosnia, Kosovo, Macedonia, Albania, Turkey and Bulgaria was a product of the new threatening se-

---

[8] Национална концепција за безбедност и одбрана, стр.6.

curity developments in the region. In this context, it is necessary to emphasize that this was organized in an original, specific way and with different intensity in all parts of the Balkans. The common denominator for the Balkans is that it (will) serves as an open gate - bridge for the transfer of new security threats from the Middle East to Europe and, through Europe to the US. It was anticipated and very logical that the current Balkan conflicts will open the doors widely to a new wave of fundamentalist/Islamist militant terrorist activities. The new wave of terrorism in the Balkans, towards Western Europe, will be brought about by the "united" structures of the Balkan terrorist organizations in conjunction with identical structures "imported" from the Middle East. The history of the Balkans, and the history of many regions of the world have always included various violent crimes, and terrorism is one with a prominent position.[9]

The migrant crisis is the initial spark that initiated the debate on what Europe and the European Union should look like tomorrow or in ten years. Will it be a Union dominated by politicians like Viktor Orban, who use migrants to impose their own vision of what Europe and the EU should look like, or will the spirit that formed the EU prevail - the spirit of togetherness, cooperation between peoples and traditions?

Europe, and therefore the European Union must have a common policy, to find a solution of how to protect the external borders. It is necessary to strengthen Frontex, especially to take appropriate measures to resolve the crisis at its source, the crisis hotspots - the countries such as Syria, Iraq, and Afghanistan.

Neglecting these countries by NATO and the EU takes a toll on them, and this cost is rising constantly. European security requires functional institutions, patrolling, and monitoring borders, immigrant services enhanced with biometric capabilities against terrorism. Balkan countries lack the capacity and resources. Europe should provide a common answer for the migrant problem, because no country can solve the problem by itself with its own resources. Macedonia expects the treatment as a Member State by the EU. We emphasize solidarity and shared responsibility as essential. No less important is the need to adopt a unified position in addressing the challenges with the refugees and urgently address the protracted conflicts as the primary cause of the immigrant-refugee crisis.

REFERENCES:

1. Ariel Cohen, Dinu Patriciu Euroasia Center – Atlantic Council, 27 January 2016.

2. М.Котовчевски, „Маѓепсаниот круг на вооружените конфликти и тероризмот на Балканот", Филозофски факултет, Институт за мировни и одбранбени студии, Скпоје, стр.2.

3. Национална концепција за безбедност и одбрана, стр.6.

4. Член *33* на Конвенцијата од *1951-ООН*

5. https://hr.wikipeia.org/

6. www.telegraf.mk

7. http://www.utrinski.mk/default.asp?ItemID=0944212C2DD1CA47BFF298BEC6C8E414

---

[9] М.Котовчевски, „Маѓепсаниот круг на вооружените конфликти и тероризмот на Балканот", Филозофски факултет, Институт за мировни и одбранбени студии, Скопје, стр.2.

CRITICAL INFRASTRUCTURE PROTECTION AND ENERGY SECURITY – KEY FACTORS FOR BUILDING SUSTAINABLE ENERGY STRATEGY IN THE REPUBLIC OF MACEDONIA

Aleksandar GLAVINOV[1],
Jovan STANIKEVSKI[2],
Urim VEJSELI[3]

Abstract: *Energy strategy is an important segment for the sustainability of any modern society and a challenge, which has to be continuously monitored and adjusted based on the changes in regional and global energy policy. The main purpose of the energy strategy is the provision of a sufficient amount of supply.*
Energy security and critical infrastructure protection have the primacy in the creation of any energy strategy. The adoption of procedures, measures and standards for early warning and crisis management in the event of a potential threat to the critical infrastructure, allows reducing the indirect vulnerability of the critical infrastructure regarding energy security. Energy security is an important component of the national security of each country, because the availability of energy resources and energy efficiency of critical infrastructure is of paramount importance to the quality of life of the country's population, economy and public sector.
Starting from the strategic interest in the development of a national and regional energy strategy, and the strategic interest of full membership in the EU, through the implementation of normative legal framework for the protection of the critical infrastructure, energy security and energy strategy resulted in the research for this paper.

Key words*: critical infrastructure, security, national, energy.*

Introduction

The hindered operation or destruction of one or more elements of the critical infrastructure can cause technological accidents resulting in certain crises. Nowadays, the ambition to acquire higher profit with lower costs has marginalized the issue of security of the critical infrastructure. Thus, the critical infrastructure became insufficiently protected and vulnerable.[4]

---

[1] The Author is professor at the Military Academy "General MihailoApostolski"-Skopje
[2] The Author is MSc, Army of Republic of Macedonia
[3] The Author is Assistant Proffesor, Crises Management Center of RM
[4] Jordan Popovski, Terrorism and Critical Infrastructure Protection: Case Republic of Macedonia, Contemporary Macedonian Defense no. 26, (Skopje, 2014), 134.

Critical infrastructures Protection (CIP) is currently a subject of a broad discussion. Moreover, the consequences of major disasters such as the terrorist attacks on the World Trade Center and the Pentagon in 2001, and the nuclear disaster in Fukushima in 2011, reminded us of the dependency of our society's safety on the uninterrupted operation of the energy, communication, and transport infrastructure. Even the smallest (insignificant) events, like the ash cloud in Europe in 2010, which caused chaos in the European transport infrastructure, show that the cascading effects can cause interesting challenges for business.[5]

In the last decade, the Republic of Macedonia has made significant steps to analyze the elements of critical infrastructure regarding the risk and preparation for events that could interrupt the operation, by drafting protection plans for alleviation of the vulnerability of systems at all levels (local, national, and regional). The drafting of the strategy for prevention of negative scenarios of terrorist attacks or natural disasters is a very complex issue and a major challenge for the proper planning of response to a given crisis.

According to the "European Union" critical infrastructure is a property, system or part thereof located in the territory of a Member State, and which is necessary for maintaining key state functions, such as health, safety, security, economic, and social well-being, and whose interference or destruction would have a significant impact on the Member States.[6]

Taking into account this definition, we can say that the critical infrastructure in one country is a "system of systems." The greatest significance of the infrastructure is recognized as critical for the country, which gives responsibility for creating protection measures, which will contribute to reducing the risk of decommissioning. Interdependencies typically are not well researched, and disruptions in one infrastructure can easily be transferred to another, and cause a cascading effect. Critical infrastructure is connected to all levels, and an anomaly of a critical infrastructure can cause a breakdown or accident in the other critical infrastructure and vice versa.

Moreover, we can say that in the wake of the 21st century, any sector of society is inoperative without power. Hence, there is a need to protect the most abundant and the most needed sector – the energy. The most common sub-sectors in the energy sector are the following: electricity, oil, and gas. The protection of the energy sector is very complex and requires a lot of resources, people, and money, since the successful protection of the energy sector must encompass all the infrastructure facilities for production, transport, distribution and supply. Therefore, the Republic of Macedonia directs the major political and economic efforts at providing functional sustainability which in future could be secured through energy stability and timely and cost effective delivery of energy and resources to our economy. Thus, the Republic of Macedonia considers improvement in the field of energy security, improvements of the production and delivery, and development of alternative energy sources.

Critical Infrastructure Protection in Macedonia

Even though the Republic of Macedonia is a candidate country for EU mem-

---

[5] Iceland volcano: the impact of the ash cloud on Britain. (2010). Retrieved 02 March 2015. http://guardian.co.uk/world/2010/apr/18/iceland-volcano-ash-economy-airlines.
[6] Council Directive 2008/114EC of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection. (2008). Official Journal of European Union L, 345-375.

bership, it has not yet identified and adopted a basic definition of national critical infrastructure. Furthermore, it is worth noting that one of the most difficult and complex parts of the process of EU accession is the definition of the criteria used in determining the infrastructural facilities and processes encompassed within the critical infrastructure.

The fact that the modern society is completely dependent on technology makes it even more vulnerable from a security point of view, whereas the risks and threats for uninterrupted functioning of the critical infrastructure are even more difficult to master. Some parts of the infrastructure for the functioning of society are of such significance that their decommissioning or limited functioning would cause serious consequences and problems in a given society. This infrastructure is defined as critical infrastructure, and we will try to define the national and international levels, within the context of assumptions of its malfunctioning or destruction. In this context, we believe that two sectors in particular are the most exposed ones - the electricity sector, and the information and communication sector are inextricably linked and significantly affect the operation of other critical infrastructure sectors. These two sectors, including the transport sector, have important international aspect, which is related to the adopted EU Directive on European Critical Infrastructure.

The experience of the Member States of the EU in this area, and particularly the experience of the Republic of Slovenia and the Republic of Croatia as the most appropriate, can be of great benefit to the Republic of Macedonia as a potential member of the EU, because the EU itself has a different approach to critical infrastructure protection. On the one hand there is a group of countries that consider that the Directive should clearly point out the roles and responsibilities for CIP, and on the other hand there are countries like Germany, which aim at precise regulation of direct operational activities. Their philosophy is based on the fact that the attitude of the state on the one hand and those managing the critical infrastructure on the other hand is of essential importance, and it can be achieved only by joint social agreement in order to have the capacity to deal with various measures and ensure the adequate level of security of critical infrastructure. The biggest issue regarding critical infrastructure protection is the high financial cost, as well as providing an answer to the question – which entity will cover the greatest part of the cost for providing adequate security for the critical infrastructure. Hence, the conclusion that priority should be given to the energy and transport sectors, and as mentioned earlier; they are in constant conjunction with the information and communication technology sector, and they cannot function one without the other.

Nevertheless, we should clearly focus our efforts. The Republic of Macedonia must identify and adopt the basic definition of national critical infrastructure. However, the adoption of this definition is the most complex part of the process. The most difficult and most important factor in CIP is to establish the criteria to determine which infrastructure facilities and processes are encompassed within the critical infrastructure. In the case of an unsystematic approach and aspiration to include too many entities in

the critical infrastructure, the state could rapidly become incapable of providing the finances, as well as the sufficient human and technical resources for effective protection of a certain critical infrastructure.

However, we must be aware that security is not only a necessity, but also an opportunity for many companies to actively engage in the process of critical infrastructure protection, including the security companies, i.e. private security. To effectively implement critical infrastructure protection, the state, as well as the managers will have to use the capabilities of the security companies in the field of private security. Private security companies have to improve the quality of their services and activities. This is the only way to become a significant part of the public-private partnership in the area of critical infrastructure.[7]

It is necessary to pass a Law on Critical Infrastructure in the country, since it would regulate: the criteria for determining the national critical infrastructure management, the critical infrastructure, the method and model for the protection of national critical infrastructure, and the role of the security of critical infrastructure within the national security of the state.

Energy Security of the Republic of Macedonia

The globalization of the world, and thus indirectly the globalization of security, presents the modern society with many challenges; namely, to continue its development based on the principles of free movement of goods, services, finance and people, and on the other hand to keep security threats on the level of acceptable risk. After the Cold War, the emergence of asymmetric threats to national and international security resulted from completely different assumptions and perceptions of the basic concept of security that was based on a static approach to the management of conventional distinctive types of threats.

The system of national critical infrastructure and its effective operation is an important segment within the national security system and at the same time represents a very sensitive segment in terms of contemporary threats. The dependence of modern societies, with a special emphasis on the system which includes the critical infrastructure, such as the increased threats to the system of critical infrastructure protection; the question of national security is a priority.

At the state level, energy security implies continuous energy supply necessary to meet national needs and based on the security of supply, which does not only refer to increasing the energy independence and reducing dependence, but aims to reduce the risks associated with energy dependence.

The abovementioned can be implemented in the Republic of Macedonia, because there is a need to immediately start systematic consideration, planning, and imple-

---

[7] Metodi Hadzi-Janev & Stojan Slaveski, Corporate security and critical infrastructure protection in the Republic of Macedonia: perspectives and challenges. Security Dialogues Vol 2, No. 4, (2011), 9-10.

mentation of activities related to achieving energy security and critical infrastructure protection, aiming at supporting and implementing the Energy Development Strategy.

All countries, including the Republic of Macedonia face a continuous growth of energy consumption and the need for a long-term planning and providing new sources of energy. The global trends indicate the need for creating national strategies to protect critical energy and other infrastructure, and as a consequence it is necessary to redefine the core strategic documents, such as the security strategy and security policy.

In the era of economic and cultural globalization, the problem of the energy security system must be approached comprehensively in order to analyze the adequacy and security of the critical infrastructure and other technical and technological aspects of the energy security (physical security of energy supply, energy security installations, energy security transportation, etc.), so that preventive action could be taken and effective operation of the state could be ensured.

As electricity prices will increase in the coming period, the Republic of Macedonia should intensively continue with the energy reforms to reduce the effects of rising energy prices, reforms to improve the heating market, the energy efficiency, to provide support to local projects of gasification and continue the plans for gasification at the central level.

Increasing the use of natural gas means that the country should be intensively consider natural gas in terms of energy security, to try to join as many pipelines as possible, but the important thing is in the meantime to take all the measures it can possibly take - to use the maximum capacity of its pipeline and increase its capacity.

The most important interests of the Republic of Macedonia, prerequisites for development and realization of the vital interests of the state, included in the National Concept for Security and Defense are the following:

- Establishing and developing all forms of cooperation with the neighboring countries, and in the interest of peace, security and development of the Republic of Macedonia and its neighbors;

- Contribution to the preservation and promotion of peace and stability in Southeast Europe (SEE) to strengthen the area of democracy, security and prosperity of all countries in the region;

- Participation in building peace and stability in the region, Europe and the world, as well as prevention of and building instruments for early warning for crises and tensions - timely and efficient resolution by peaceful means;

- Preservation and improvement of the international order based on justice, mutual respect of international order grounded in international law, and political and economic equality of states, and

- Creating conditions to promote the safety culture.[8]

---

[8] National Concept for Security and Defense. Retrieved 25 June 2015. https://arhiva.vlada.mk/files/Vladina_koncepcija_za_bezbednost.pdf, 4-5.

Energy security is indirectly included as a segment of the security system of the Republic of Macedonia, which should undergo certain changes for successful realization of national interests. Thus, the Republic of Macedonia through its security policy will improve the security system, which will be capable, effective and credible to meet the security challenges of this century, to solve national crises, and help resolving crises in the region and beyond.

The fact that energy security can not be effective and viable only at national level but must develop cooperation at regional and global level, not only supports the challenges posed in the National concept for security and defense, but also leaves room for improvement of all levels.

Energy Strategy of the Republic of Macedonia

Modern industry and its development are based on the persistence of potential sources of primary energy resources such as oil and natural gas. The Republic of Macedonia now has an access to oil deposits and sources of natural gas, so it is clear that these energy sources can only import and adapt, but without affecting the global trends in making decisions about production and trade of oil and natural gas.[9]

High energy consumption per unit of GDP and high energy import dependence of the Republic of Macedonia on the one hand and low energy consumption per capita on the other hand, there is a need to improve energy efficiency through saving energy to the greatest possible extent without jeopardizing the economic development and the standard of the population. The analyses of the possibilities for ensuring the necessary energy take into account that the Republic of Macedonia is part of a regional energy market which is fully liberalized and has become an integral part of the wider European market. Accordingly, complete transparency, competition and non-discrimination in the energy sector, taking into account the liberalization of the sector, both in the field of production and energy supply, especially electricity, is a prerequisite for realization of the planned scenarios. Greater diversification of energy resources by types, sources and suppliers is planned in order to ensure energy security. In this sense, an active role in the regional energy market and the European Energy Community is envisaged, as well as a reduction of the high energy import dependence of the Republic of Macedonia with a maximum possible utilization of domestic resources.[10]

Achieving the optimum results with limited resources is a challenge. The complexity of the activity, gaining a better insight into the overall risk and priorities, stresses the need to link all stakeholders: the government, industry, science and the public. This is important both at the level of management by construction and manage-

---

[9] Toni Milevski, Energy Security. "Sts. Cyril and Methodius"- Skopje, Faculty of Philosophy (Skopje, 2014), 122.

[10] MASA, Strategy for Energy Development in the Republic of Macedonia until 2030 (Skopje, 2010), 113.

ment of the power system, and the level of preparation of activities in case of partial or complete loss of power supply. Through the association of property and liability risk, the security of the power system would increase due to the introduction of significant market principles.

Considering the energy strategy of the Republic of Macedonia, we must emphasize the importance of the "South Stream" project and the benefits that it should provide for the energy sector of the Republic of Macedonia. Regardless of the diplomatic pressure as well as the pressure exerted by the Energy European Commission, the Republic of Macedonian must make additional efforts to ensure access to gas from the South Stream.

When the EU signed the agreement to streamline the South Stream through Central and Southeastern Europe, Slovakia signed an agreement with Russia on the South Stream passing through its territory and there was an agreement between Russia, the United Kingdom, Germany and the Netherlands for building two new gas pipelines to Germany, which did not stir any reactions by the European Energy Community and the European Commission. What made the situation even more dramatic was the fact that this happened just several days after the decision to extend sanctions against Russia. By signing the agreements, the EU provided gas at an affordable (inexpensive) price for the next 50 years.

This confirmed the speculation that the passage of the South Stream through the Black Sea, Turkey, Greece, Macedonia, and Serbia to Europe was only wishful thinking, not reality.

The Republic of Macedonia must take advantage of these developments and make a move, until it is too late. The benefits of the joining the South Stream by the Republic of Macedonia is not only financial (transit through the territory), but every company and every individual in the country will benefit from it.

The South Stream project must be supported, and we have to emphasize the importance of this project not only regarding the future of energy, but it will have a great significance for many other branches which will gain a new quality from the project. First and foremost, this will result into improvement of the ecology in the Republic of Macedonia and will facilitate our commitment for healthy food production. If we used gas from the South Stream, it would help us produce in a cleaner environment. It would also help in terms of development of the industry and tourism, considering the fact that future investors would be encouraged to invest in the country knowing that gas is one of the energy options, which is one of our permanent goals – new employment opportunities.[11]

Macedonia's membership in the Energy Community enables closer cooperation with all member states, and by creating a stable regulatory and market framework it

---

[11] Emil Naimi, Energy Projects are the Most Attractive, (2014). Retrieved 04 April 2015. http://mk.rbth.com/economocs/2014/09/23/najprivlecni_se energetskite_proekti_37301.html

would result in attracting investments in the transit and transmission infrastructure for gas and electricity, as well as the facilities of energy production. All this ensures a stable and uninterrupted supply of natural gas and electricity. The establishing of a single regulatory framework in Southeastern Europe creates opportunities for connection with the Caspian, North African and Middle Eastern natural gas reserves and exploitation of domestic reserves of natural gas, coal, and hydropower potential. The membership in the Energy Community also enables the development of competition and liquidity, and utilizing the economy in volume. The Treaty establishing the Energy Community devotes a special section to the improvement of environment with respect to natural gas and electricity by improving energy efficiency and use of renewable energy.[12]

Each energy strategy is designed to promote: reducing energy dependency, ensuring energy security at an affordable price for the population and industry, security and continuity of the availability of the energy resources, competitiveness of the energy market and environmental protection.

To achieve this, it is necessary to ensure critical infrastructure protection and energy security at all levels (local, national, regional and global).

The change of the social circumstances and tensions arising from the rapid technological development, some segments of society have found themselves completely unprepared to cope with the new global security situation. The emergence of non-state actors in interaction with the traditional entities in the area of international relations brings to the surface the new forms of asymmetrical security threats. This means that the traditional national systems and mechanisms can no longer be effective in the phase of management and countering these new threats.

In most of the developed countries, and in Republic of Macedonian as well, the primary sectors of critical infrastructure include: the energy sector, transport sector, and the telecommunications sector.

All these sectors are immensely interdependent, and thus it is necessary to upgrade, improve, and unify regional them at a regional and global level, so that they would support the national and regional energy strategies.

Nowadays, the world is increasingly concerned about the security of supply, due to the fact that the greatest energy potential can be found in highly unstable/unsafe areas which pose a problem in the process of production and distribution of energy. Safe supply has become a key precondition for further development, especially in the economy, but also for the society as a whole.

The national security strategies of certain EU countries identify the threat to national critical infrastructure as a potential threat to the overall functioning of the society, as well as the national security system. The national critical infrastructure includes the facilities, systems and services (transport, energy, communication and information systems, financial and banking systems, public administration, health, food

---

[12] Ibid 7, 190-191.

industry) that support the economic, political and social life. The destruction of and endangering the segments of the national critical infrastructure can cause a huge loss for the population and a direct impact on the national security and economy, as well as other serious consequences for the community as a whole or any part of it.

The energy strategy and the development of each country must be considered in the context of energy security, because it is immensely significant that each country ensures safe and continuous energy supply, especially the energy dependent countries. Access to energy is a key driver of economic activity, given that energy resources are unevenly distributed geographically, their availability depends on the course and conditions of international trade and investment. Energy issues and the development of each country must be considered in the context of energy security. The availability of energy and energy resources, and the efficiency of the critical infrastructure are of paramount importance for the quality of life of the population of the country, the economy, and the public sector. In history, often, the control of energy sources and flows is a subject of social conflicts and security crises, so the geopolitical aspects of energy security are particularly marked in the strategies for national security of most of the countries in the world.

Apart from being a threat to regional and national security, an important aspect of energy security is the relationship with the environment. The damage to energy facilities and the critical infrastructure can cause environmental pollution at the local level, and might lead to environmental disasters like the ones in Chernobyl, and more recently in Japan. Furthermore, the lack of energy, the uncertainty of energy supply, as well as the insufficient or inadequate infrastructure are of great importance and may directly impact the reduction of the capabilities of the security, transport, communications, logistics, and other sectors in terms of availability to the population in case of natural disasters, extreme conditions of life and work, and even in certain medical cases.

In modern societies, the issue of protection and security of the critical energy infrastructure is raised at a time when all developmental and institutional aspects of "the national energy infrastructure" are strongly influenced by the international rela-tions (globalization), as well as the interdependence of the largest energy producer and consumer in integrated Europe. Therefore, some EU member states are conducting a revision of the national energy strategies regarding the issues of the capacity to meet the key energy resources needs, the role of the country in the current and future devel-opment of the electricity sector, and the relationship between the energy infrastructure (as part of the critical infrastructure) and national security. Thus, today, more than ever, it is essential to have the appropriate technical and technological assessment of the existing and potential opportunities for energy networks, available for use and storing reserves of certain types of energy.

Regarding the liberalization of the production and distribution of electricity, the security of the private capabilities for energy production can no longer be provided only by the public sector, exclusively at the expense of the central government. Therefore, the

problems of internal security of companies engaged in the production and distribution of energy, as well as the issues of security of the energy transmission system, create new problems in the relationship between the private and the public sector. This also applies for the management of energy supplies, and the regulation of relations between the elements of critical energy infrastructure and the local communities.

The EU and the US have the highest level of commitment in the field of critical infrastructure protection and energy security, while NATO also plays a significant role with the possibility of preventive action. The prevention in the process of critical infrastructure protection and energy security is the most important factor, and if it is timely it may result in avoiding a cascading effect caused by a defect or an accident of a particular critical infrastructure and the transfer to another (the principle of connected vessels). Therefore, the successful preventive actions, not only protect the critical infrastructure, but also protect the economy, the banking system, healthcare, services, and the economy as a whole. The protection of these branches in a country also refers to the protection of the national interests and national security, thus the protection of human rights and freedom.

Finally, we must stress that the mutual entanglement of the energy security, critical infrastructure protection and energy strategy directly impact the climate change and environmental quality in some parts of the world. These changes can lead to economic, social, and political consequences, internal and international conflicts and can cause hunger, poverty, and migration.

Conclusion

The Energy Strategy of the Republic of Macedonia contributes to the regulation of the energy sector, energy efficiency, and boosting investment and consumer protection.

The increase of energy efficiency will contribute to the reduction of electricity consumption in all segments, resulting in deceleration of the energy resources depletion. If the Republic of Macedonia intensifies the gasification projects, the citizens and the economic operators will have unparalleled access to inexpensive energy, will save resources in the process of supply of expensive energy and resources, which will result into greater market competitiveness.

The regional cooperation in the construction of joint production facilities would primarily solve the problem of power supply in the Balkan countries.

A comprehensive approach in the analysis and use of all facilities to build a nuclear power plant, with the inclusion of Macedonia in a joint regional project for the construction of a Balkan nuclear plant would increase regional security and diversification of the energy resources and the energy infrastructure.

The effective critical infrastructure protection in the Republic of Macedonia requires the adoption of a law on critical infrastructure.

An effective energy strategy of the Republic of Macedonia will facilitate the integration in the European energy strategy, as well as integration into the European Union.

The key aspect of the national and international security in the 21st century encompasses the issue of energy security and critical infrastructure protection. The energy strategy and the

development of each country must be considered in the context of energy security, because it is of utmost importance for every country to ensure safe and continuous energy supply, especially for energy dependent countries.

The safe energy supply, which is primarily an issue of the Energy Strategy of each country, is a key precondition for further development, especially in the economy, and the society as a whole.

The negative consequences suffered by the critical infrastructure owned by the private sector may jeopardize the entire critical infrastructure and adversely affect the energy security, directly threatening the national security of the country.

REFERENCES:

1. Emil Naimi, Most attractive to energy projects (2014)

http://mk.rbth.com/economocs/2014/09/23/najprivlecni_se energetskite_proekti_37301.html

2. Iceland volcano: the impact of the ash cloud on Britain 2010

http://guardian.co.uk/world/2010/apr/18/iceland-volcano-ash-economy-airlines

3. Jordan Popovski, Terrorism and Critical Infrastructure Protection: Case Macedonia. Contemporary Macedonian Defence no. 26 (Skopje, 2014).

4. Council Directive 2008/114EC of 8 December 2008 on the identification and designation of European critical infrastructures and the assessment of the need to improve their protection. (2008). Official Journal of European Union L.

5. MASA, Strategy for Energy Development in the Republic of Macedonia until 2030 (Skopje, 2010).

6. Methodi Hadzi-Janev & Stojan Slaveski, Corporate security and critical infrastructure protection in the Republic of Macedonia: perspectives and challenges. Security Dialogues Vol 2, No. 4, (2011).

7. National Concept for Security and Defense

   https://arhiva.vlada.mk/files/Vladina_koncepcija_za_bezbednost.pdf

8. Toni Milevski, Energy security. "St. Kiril and Metodi "- Skopje, Faculty of Philosophy (Skopje, 2014),

CONTEMPORARY FORMS OF TERRORISM

Marjan BOGDANOSKI[1]

Abstract: *In the era of globalization we face terrorism that takes attributes of a global scourge. Modern technological developments in the 21st century allow changes in all significant aspects of the terrorism "technology". Besides the generally accepted traditional terrorism, we are increasingly faced with the so-called postmodern terrorism, or super-terrorism. This term in academia and in practice is used to indicate the use of weapons of mass destruction (WMD) - nuclear, biological, chemical, radiological, which are expected in the future. In this context there is an increasing investigation of the possibilities of each individual weapon so that there are already discussions about nuclear terrorism, radiological terrorism, bioterrorism, and chemical terrorism, with the addition - cyber terrorism denoting the information and communication systems attacks.*
Advances in technology and the fact that weapons of mass destruction possess characteristics, which in certain situations and circumstances makes them a very convenient means of violent achievement of political goals, opened the possibility for its abuse by terrorist organizations.

Keywords: *terrorism, nuclear terrorism, bioterrorism, chemical terrorism, cyber terrorism*

Introduction

Today, terrorism, in all its forms, is one of the biggest threats in the world. In this context, it is necessary to point out the possibility for the use of the weapons of mass destruction (nuclear, chemical or biological) for terrorist purposes.

After September 11, 2001, when the world realized that terrorism can cause mass suffering, weapons of mass destruction, which after the Cold War was somehow marginalized as a source of danger, again gains in importance.[2] It starts to engage politicians, members of the security services and researchers and experts. Nuclear-chemical, biological, and toxic weapons pose a threat to humanity that terrorists would apply if they wanted to cause mass suffering.

The threat of weapons of mass destruction raised a number of local, regional and international conferences on the topic of WMD, as well as many ambitious activities such as

---

[1] The Author is Associate Professor, Institute of Digital Forensics, „Euro-Balkan" University - Skopje
[2] See more in: Confronting Ambiguity: How to Handle North Korea's Nuclear Program, Phillip C. Saunders, Arms Control Today March 2003, http://www.armscontrol.org/act/2003_03/saunders_mar03.aspNuclear Control Institute, India, Pakistan Control Central, http://www.nci.org/ind-pak.htmNuclear Issues in India and Pakistan: Selected Internet Resources, http://www.lib.berkeley.edu/SSEAL/SouthAsia/nuclear.html

the Program for non-proliferation of WMD under the name of Weapons of Mass Destruction, Counter Proliferation Policy and Implementation Issues. We should distinguish between WMD in the narrow and broad sense.

- WMD in the narrow sense refers to the nuclear, chemical, biological and toxic weapons, their agents and precursors;
- WMD in the broader sense refers to all toxic chemical agents are used as a means to attack, or targets of attack, all microorganisms and their products if they are the means, and the target of attacks, and all industrial facilities that use toxic chemicals and microorganisms in the production process; as well as all storage and passenger and transport means of such toxic chemical agents that can be targeted by the military and/or terrorist activities, or are meant to achieve the goal[3].

Today in the US, and some other Western countries, the prevailing belief among government officials and the majority of the public opinion is that it is not an issue of whether it will happen, but when a terrorist attack (incident) with chemical, biological, radiological and/or nuclear weapons (WMD) will happen. This weapon has the power to cause "mass destruction" or "mass casualties". Individual experts describe the future terrorist attacks with consequences in the form of devastating casualties, enormous material damages, destruction of the animal and material world and endangering the environment to the level of ecocide, not only as possible, but as most likely. These experts do not describe such terrorist attacks in details, but if there is the slightest opportunity to come to a disaster of such magnitude, systematic measures and plans for defence and protection must be taken.

The claims that modern terrorism will inevitably lead to the use of weapons of mass killing and destruction is based on the following premises[4]:

- Terrorism is becoming more deadly (the number of terrorist incidents of this nature shows a pattern from the 90-ies of the last century);
- Terrorists are constantly trying to improve their technology;
- The number of dead and the application of newer technologies in all incidents is a major criterion in the ranking;
- By the end of the "Cold War," the proliferation of WMD and staff is even more evident, with a greater likelihood of an amateur production of weapons in conditions of globalization of the world, especially nuclear, biological, and chemical weapons;
- For super-terrorism to take place it is not necessary to have nuclear or radiological weapons (until now such a case has not been noted - it is a combination of powerful conventional explosives and radioactive materials the use of which pollute the space with radio isotopes for longer periods of time).

After the terrorist attack in the United States in 2001, representatives of the UN and especially the World Health Organization warned the world that the attack may be an introduction in the possibility for terrorists to use weapons of mass destruction (especially chemical

---

[3] See more in: Relearning the ABCs: Terrorists and "Weapons of Mass Destruction", Morton Bremer Maerli, The Nonproliferation Review, Summer 2000, http://cns.miis.edu/pubs/npr/vol07/72/72maerli.pdf Press Release SC/7158, Security Council Unanimously Adopts Wide-Ranging Anti-Terrorism Resolution; Calls For Suppressing Financing, Improving International Cooperation, Resolution 1373 (2001) Also Creates Committee to Monitor Implementation http://www.un.org/News/Press/docs/2001/sc7158.doc.htm

[4] Jović. R. Nikolić. D. Hemijsko – radijaciona dimanzija bezbjednosti. Fakultet za mediteranske poslovne studije, Tivat, 2011, str. 124

and biological weapons). There are few ways for the terrorists to come into possession of these dangerous weapons in several ways:

- Buying from local criminal groups in countries of the former Eastern Bloc; stealing from or corrupting prominent chemists, biologists, and other professionals who have lost their jobs;
- By synthesis of poison gasses in legal laboratories in which chemists and pharmacists who know the technology or worked on such operations in known and top chemical institutions would work for better earnings.

Because of the terribly devastating and destructive effect on enormous areas, and due to the nature of the impact of the WMD on the people and wildlife, after 2001, new theories of nuclear, radioactive, and chemical terror and terrorism are being developed. A broad front has opened worldwide for anti-terror fight without compromise.

Nuclear Terrorism

The phenomenon of terrorism on the global stage has been present for a long time, but, as the 21st century has brought great innovations in the approach and manner of waging war, terrorism has got a special place, as an important element of the so-called unconventional war (which is already almost certain to be the dominant form of warfare in the future). This means that terrorists can now be found in a wider area, ranging from single individual, to entire countries. In that sense, it is especially important that some of the most complex weapons such as weapons of mass destruction, which in the past served to a small number of countries as a means of intimidation, have become potential terrorist assets. According to many theories, the possibility of nuclear terrorism is the fact that causes most concern. Nuclear terrorism is basically a term that includes multiple options that do not necessarily involve nuclear weapons. Therefore, it would be most appropriate to talk about nuclear material for terrorist purposes, which in the fullest consideration is nuclear terrorism. In this sense three main principles of action can be defined:

- Use of a nuclear explosive device (nuclear explosion);
- Attack or sabotage of the existing nuclear plants;
- The use of the so-called "dirty" bomb (classical explosion by which the radioactive material is sprayed around).

Nuclear terrorism is terrorism of high technology. The radioactive material is well kept, it is expensive and dangerous, so it is not readily available to operate and at the same time hold in secret. In any case, highly technical knowledge is needed, even for construction of a primitive nuclear bomb. Day by day, the access to various types of data it getting easier. In addition, there is a number of good experts who have worked in the national programs of countries that possess this kind of weapons. After the end of the Cold War, many of them lost their jobs and became a good target for groups or countries to which their knowledge is necessary. This means that the main problem is

no longer knowledge, but production and considerable investments.[5]

The assessment of the likelihood of the use of nuclear or radiological weapons in terrorist purposes is of vital importance for all subsequent steps in the suppression of such acts.[6]

Nuclear weapons are weapons made on the principle of using uncontrolled nuclear or thermonuclear reaction, during which, in a small period of time a large amounts of energy and radioactive materials are released, causing a nuclear explosion that differs from the classical explosion in the amount of energy released and the natural changes occurring inside the explosives. There are many theoretical debates on nuclear terrorism as a possible form of terrorism. Today, the nuclear threat to humanity from the period of the so-called Cold War, undoubtedly, is largely replaced by threats by terrorists to use weapons of mass destruction. Potential terrorist attacks would cause dramatic consequences, both in terms of human casualties, and in terms of material damage, as well as psychologically; such a form of terrorism would cause a much larger impact than any other form of terrorism because there is a very common fear from nuclear weapons[7]. Individual theorists, such as Jenkins Brian, considers the nuclear terrorism possible, but do not consider it a major threat, while others theorists, like David Mabry, criticize these views, saying that the possibility of nuclear terrorism is high, or that bombs as the most popular terrorist weapons could be replaced with nuclear bombs, as a logical continuation of this practice[8]. The International Atomic Energy Authority - IAEA issued a warning stating that the risk of nuclear terrorism against civilians has never been greater, given the possibility of some terrorist organizations to produce a fully portable nuclear weapons or "dirty" bombs or "briefcase" bombs that could contaminate certain cities, states, or regions. In line with the International Convention for the Suppression of the Acts of Nuclear Terrorism, nuclear terrorism is considered as unlawful and intentional possession of radioactive material or workmanship and possession of devices intended to cause death or serious bodily injury, or with intent to cause significant damage to the property or the environment. The use of radioactive material in any way or using the devices of or the use or damage of nuclear facilities in a way that release or threaten to release radioactive material, all with the intent to cause death or serious bodily injury, or with intent to cause significant damage of the property or the environment, or with the intent to compel a natural or legal person, international organization or state to do or abstain from doing any activity are all considered as acts of nuclear terrorism[9].

---

[5]   Ilijaš, B. Nuklearni terorizam-mogućnosti i posljedice, 2003, http://www.hrvatski-vojnik.hr/hrvatski-vojnik/992003/nuklear.asp

[6]   Anet, B. Assessing the Risk of Radiological Terrorism: How Real Is the Threat? The Fourth International Chemical Biological Medical Treatment Symposium (CBMTS lv); Spiez, Switzerland. Technical Program 2002, p. 13.

[7]   Кеча. Р. Тероризам – глобална безбедносна пријетња – Бања Лука, 2012 стр. 158-159

[8]   Џонатан Вајт: Тероризам, Београд, 2004 стр. 305-308.

[9]   Vrđuka, A. Nuklearno oružje i suvremeni terorizam: doktorska disertacija, Zagreb2010 стр. 112

The introduction of nuclear terrorism in international relations is one of the important features of the development of the world after the Second World War[10].

Today, the global stockpile of nuclear weapons is significantly smaller compared to the end of the Cold War. Through a number of agreements and conventions the number of nuclear warheads has reduced to the lowest level, but at the same time the number of nuclear powers has grown from three to nine. Countries that are considered as nuclear power and those which are believed to possess nuclear weapons (US, Russia, Britain, France, China, India, Pakistan, North Korea and Israel[11]) today possess about 25,000 nuclear warheads. About 12,500 nuclear warheads are considered operational while the rest is in reserve or awaiting dismantling[12].

The fear of nuclear terrorism or terrorist attacks with nuclear and radiological weapons and attacks on nuclear power plants is growing. Nuclear terrorism will likely have a greater impact than it is the case with the classic terrorist acts, and it is in line with the trends that follow modern terrorism.

The reason why the terrorists have not yet committed a single act of nuclear terrorism is not just the technical (in)ability. The motivational element is a very important reason. Motivation in terms of nuclear terrorism includes the decision to form a group with the necessary skills, but also to commit an act of nuclear terrorism. As reasons for the pursuit of nuclear terrorism we can cite revenge, apocalyptic ideas, and sensitizing the public. Some motives are more likely than others. The fact is that almost all terrorist groups will face large (primarily financial) difficulties if they try to procure, produce, and effectively use the weapons of mass destruction. However, if such a group has a country as its sponsor, the risk increases greatly.

The security discourse emphasizes that today there is no more fear of the threat that comes from nuclear terrorism. It is questionable whether there is a more important safety issue than that to guarantee the security that the worst technology will not end up in the hands of those who will not hesitate to take advantage of it[13].

The threat that terrorism today is causing increasingly reduces the overall security. Rather than further human progress, there was progress in terrorism with the prospect of a new form of the so-called "asymmetric warfare" (use of nuclear weapons, bombing from long distances, breaking down oil refineries and industrial centres, bombs, depleted uranium, etc.)[14].

---

[10] Kalandrin. N. Društvene posljedice sekuritizacije oružja za masovno uništenje: nuklearni terorizam. Sveučilište u Zagrebu, Filozofski fakultet. pp. 11

[11] See more in: Nuclear Weapons: Who Has What at a Glance", The Arms Control Association web site, April 2004, Internet, 12/03/2005,

  http://www.armscontrol.org/factsheets/ Nuclearweaponswhohaswhat.asp.

[12] Natural Resources Defense Council – NRDC (2008.) „Nuclear Notebook: Global nuclear stockpiles, 1945 - 2006." Bulletin of the Atomic Scientists 62 (4): 64-66.

[13] Furedi, F. Poziv na teror. Rastuće carstvo nepoznatog. Zagreb: Naklada Ljevak, 2009 стр. 54

[14] Kalandrin. N. Društvene posljedice sekuritizacije oružja za masovno uništenje: nuklearni terorizam. Sveučilište u Zagrebu, Filozofski fakultet. Zagreb, 2013. Str. 14

Biological Terrorism (Bioterrorism)

Bioterrorism is a specific security threat because it features a blend of high mortality rate, relatively simple production method, and the opportunity for secret use. Perhaps the best proof for the simplicity of the misuse of biological weapons is its definition as the «atomic bomb of the poor» because of the relatively small cost of production. Seen from the angle of terrorist organizations and groups, the use of biological weapons brings more advantages over conventional explosives:
- Biological weapons produce high mortality rate in humans, animals, and plants;
- Very small amounts of biological agents can achieve high destruction;
- Biological agents can be relatively easily, and quickly activated (released);
- Biological weapons provide the opportunity for continuous operation;
- The necessary equipment is inexpensive, and easily available, and
- The active living microbes, used as part of biological weapons are already in the natural environment or they can be ordered from a biology-materials repository[15].

The terms biological weapons and biological warfare first officially emerged after World War II, particularly during the session of the UN General Assembly held in 1947, when biological weapons, in addition to nuclear and chemical weapons, were placed in the group of weapons of mass destruction[16].

Under biological terrorism is meant: application of biological agents in terrorist attacks, aiming to cause infectious diseases in civilian or military formations that are distributed in the form of epidemics and pandemics; using biological agents as weapons of mass destruction and disabling rival security forces and the forces of resistance in local and regional conflicts.

The main characteristics of biological weapons include: simple and cheap production, veiled application, effective implementation, specific actions of people, causing mass illness or death, causing panic, political instability, disruption of the operation of health and other services, problems related to the rapid detection and identification of the applicable agent, establishing adequate measures for neutralizing biological weapons and adequate treatment of patients, inability of total control, and lack of adequate information on the experience of the application of biological weapons.

The first dedicated factory for the production of biological weapons called "Unit 731" where numerous experiments with biological agents are performed was built by Japan. After World War II, it was determined from autopsy findings that more than 3,000 people, Chinese prisoners and civilians, died in the Japanese camps as a result

---

[15] See more in: Radovan Jović i Andreja Savić, Bioterorizam, biološki rat i biološko oružje, Institut za političke studije, Beograd, 2004, str. 62.

[16] Milić, D. Bioterorizam I upotreba biološkog oružja, Revija za bezbednost, Centar za bezbednosne studije, Beograd. 2010, br. 2 стр. 104-105.

of experiments with biological agents[17].

The main directions of development of biological weapons (resistance, masking symptoms, limited outdoors activity, finding new causes of disease, decontamination) indicate an even greater aspiration to create a biological weapon that could be applied in order to realize the operational and tactical aims on the battlefield. Biological weapons can inflict significantly more losses in the affected area or target compared to the major conventional weapons, and on the other hand it is cheaper for production, and it can be effectively applied. For a very low price, the affected state may experience a severe impact of uncertain duration on the whole territory. Today, there are some experts who work on the creation of hybrid microorganisms that are resistant to outside laboratory conditions, and which the existing human immune system will not "recognize"[18].

The world lives in fear of bioterrorism, and it is in a constant growth. Biological terrorism as a phenomenon in modern conditions is a preoccupation of the world's population, above all, politicians, military personnel, scientists, philosophers, and psychologists[19]. World fears lead to an increased scientific and professional interest in the phenomenon of terrorism, which should help clarify the deep dimensions of this phenomenon. After years of theoretical ignoring of terrorism, there is a need for its scientific and professional clarification. Spreading fear, hatred, universal insecurity and suffering of thousands of people, bioterrorism is a threat not only to the territorial integrity of sovereign nations and states, but also to peace, freedom and development of humanity as a whole. It may be a powerful factor for the destabilization of a country, especially if foreign interests stand behind it and should therefore be considered very seriously. Until now, a case where government has collapsed or been taken over due to terrorism has not been observed, but this possibility should not be fully excluded. Most countries in the world fight uncompromisingly against terrorism that threatens them with a view to its complete eradication. Terrorists are increasingly giving up on setting bombs, and are turning to more efficient use of resources. Biological weapons cause death, mongering; and it indicates that there is a force that must be respected[20].

Chemical Terrorism

There is an objective threat of the use of chemical agents by terrorist organizations. The most severe terrorist attack which used chemical weapons occurred in 1995

---

[17] Ibidpp. 106.

[18] Petrović D. Milinčić Lj. Biočanin.I. Genetički inžinjering u „vodenju" biološkog rata. International Conference. Ekological safety in post – modern environment. 26-27. Juny 2009. Banja Luka, RS, BiH.

[19] See more in: Радован Јовић, Andreja Савић: Биотероризам, биолошки рат, биолошко оружје, Београд, 2004. стр. 89

[20] Petrović D. Milinčić Lj. Biočanin.I. Genetički inžinjering u „vodenju" biološkog rata. International Conference. Ekological safety in post – modern environment. 26-27. Juny 2009. Banja Luka, RS, BiH.

in the Tokyo subway. The Aum Shinrikyo cult dropped sarin nerve gas among the passengers, and during this attack 12 passengers were killed and more than 5,500 people were severely wounded. Many of these people had permanent damage to the nervous system. The aim of these actions was to intimidate the population, cause fear, cause casualties, inflict economic damage, etc.[21] Among all the deadly chemicals, nerve gas had a dominant role after World War II. Nerve gases are named after their effect, meaning that their application hinders the transmission of impulses through the nervous system. All nerve gases belong to the group organophosphorus compounds, and the first such gas (tabun) was produced in 1936 by the German company "IG Farben". Apart from tabun, the most know are the sarin and soman[22].

Chemical terrorism, depending on the objective it attempts to achieve, can be divided into two main categories. The first group of attacks include those that aim at mass suffering and the second includes those that aim to achieve great material damage. In such circumstances terrorist groups release poison in overpopulated areas, water supply systems, and facilities that cannot be ventilated in order to cause suffering to a greater number of people. Terrorists sometimes use such strikes because of blackmail, or to cause great economic damage, such as, for example, attack on a particular food item, putting toxic chemical substances in the food. For terrorist organizations, chemical terrorism has several clear advantages over the nuclear and biological terrorism. This kind of terrorism can be performed not only by military chemical agents, but also with "ordinary" chemical compounds which are used in the manufacturing process by various industries such as chemical, petrochemical, pharmaceutical, oil and many others. When it comes to the so-called covert terrorism, i.e. "quiet operations", various chemicals are used or crashes in plants are intentionally caused, which later are declared as chemical incidents caused by a human factor. Given that chemical terrorism does not require great finances for its operation, there is no need of industrial plants and resources. Even poor terrorist organizations can easily obtain and use chemical weapons, so the conclusion is clear: chemical terrorism is extremely dangerous, it can easily be made and applied, and the terrorist activities in which chemical poisons are used are unpredictable, because the use of such toxins, normally, causes numerous casualties. Besides the fact that chemical poisons have several times greater efficiency than conventional weapons, it is not possible to effectively and easily detect them. Few poisons can be detected during use. One of their outstanding properties which suit the terrorists is the low purchase price, and another is that they are relatively easy to procure. Chemical weapons showed how lethal they are even in World War I. Then, as many as one million people had been exposed to their action, and 90,000 people died[23].

---

[21] Stanković, N. Terorizam i finansiranje terorizma. Evropski Univerzitet Brčko. 2014. Стр. 58

[22] Šepić, M. Tehničko – tehnološki aspekti prevencije i suzbijanja terorizma. Doktorska disertacija Univerzitet Singidunum. Departman za poslediplomske studije Beograd, 2013.стр. 59

[23] Ibidpp. 59-60

Cyber Terrorism

Considering attacks on computers and computer networks as cyber terrorism is problematic because it is difficult to determine the intent, identity, or the political motivation of the attacker.

The phrase "cyber terrorism" is increasingly used in modern society. Cyber terrorism as terminology is used to describe various actions, such as data theft or hacking, planning terrorist attacks, causing violence, or attacks on information systems (computer networks).

The official definition of cyber terrorism provided by the experts from the National Infrastructure Protection Centre (NIPC) of the United States, defines cyber terrorism as a "criminal act committed with computers resulting in violence, death and/or destruction, creating terror in order to cause pressure on the government to change its policy."[24]

A renowned expert on cyber terrorism, Dorothy Denning, defines it as an "illegal attack or threat with an attack against computers, computer networks or stored data in order to intimidate the government or the citizens in order to achieve political or other purposes".

Many authors consider cyber terrorism as a form of cyber crime[25]. Some of them, classifying cyber crime depending on the type of acts of: a) political, b) economic, c) production and distribution of illicit and harmful content, d) handling banned substances, products and goods, and e) violation of cyber privacy, place cyber terrorism within the category of political cyber crime. Debra Shinder classifying cyber crime in two broad categories: a) violent or potentially violent acts, and b) non-violent offenses, places cyber terrorism in the first category. She says that cyber terrorism involves terrorism that is carried out, planned, or coordinated by the help of computer networks[26]. The expert on cyber crime, Xingan also sees cyber terrorism as one of its forms[27].

Cyber terrorism and cyber warfare are becoming an increasingly prevalent form of terrorist activity. With the help of the new weapons, the Internet - terrorists can: overload phone lines with specialized software; hinder aviation control computers involved in the control and operation of other types of transport; abuse programs used by large financial institutions, hospitals and other services; change the formulas for making drugs in factories; change the pressure in pipelines; sabotage the stock exchange, etc. Terrorists use the Internet as a weapon and as a means of communication, and as a medium for addressing the public.

The most important characteristics of the cyber terrorism[28] are: in cyber space,

---

[24] National Infrastructure Protection Center, www.nipc.gov

[25] Вулетиќ, Д. Одбрана од претњи у сајбер простору. Београд, 2011. Стр. 29

[26] Shinder D., Scene of the Cybercrime: Computer Forensics Handbook, Syngress Publishing, Inc., Rockland (USA), 2002

[27] Xingan Li, Cybercrime: An Introduction, www.studycrime.com/crime/ cybercrime.php

[28] Види повеќе: Cyber Operations and Cyber Terrorism, DCSINT Handbook No. 1.02, 15 August 2005.

ideal to carry out illegal activities, there are limited opportunities for direct supervision and control of those activities; new spatial and temporal boundaries; mobility of terrorists; opportunity for action from long distances; real abundance of targets of attack; lack of geographical limitations; measuring the time in parts of second and opportunity for prior checking (testing) of actions, which reduce the risk of failure to a minimum.

Cyberspace is also characterized by a great phenomenological diversity (many emergent forms), a great base from which cyber terrorists are recruited, constant spreading to new areas through the greater use of computers and global computer networks, problematic measurability of the consequences and the anonymity of the perpetrator[29].

Conclusion

There exists an interest among the terrorists with regard to the question of nuclear, biological, and chemical weapons, and the number of potential offenders is growing, but many such groups have international networks, which do not depend on the financial and the technical support by the sponsors from a single country. There is a claim that the technology of turning biological and chemical materials in weapons today has been adopted by and is available to the terrorist groups.

In this context, a special problem is the internationalization and globalization of terrorist activities which by the potential use of weapons of mass destruction can endanger the safety of the planet.

Because of this fact, terrorism requires a response not only by the national security systems, but also as broad as possible international cooperation.

Thus, several proposals can be made, including the following:
- All countries should act in compliance with the plan for prevention of terrorism;
- Fight against terrorism must be consistent and must be based on the exchange of information between intelligence services;
- It is necessary to harmonize the standards and principles of activity of the special units to combat terrorism;
- It is necessary to define the procedures for responding to acts of terrorism, from preventive to repressive actions.

REFERENCES:

1. Confronting Ambiguity: How to Handle North Korea's Nuclear Program, Phillip C. Saunders, Arms Control Today March 2003, http://www.armscontrol.org/act/2003_03/saunders_mar03.asp,

2. Nuclear Control Institute, India, Pakistan Control Central, http://www.nci.org/ind-pak.htm

3. Nuclear Issues in India and Pakistan: Selected Internet Resources, http://www.lib.berkeley.edu/SSEAL/SouthAsia/nuclear.html

4. Relearning the ABCs: Terrorists and "Weapons of Mass Destruction", Morton Bremer Maerli,

---

[29] Šepić, M. Tehničko – tehnološki aspekti prevencije i suzbijanja terorizma. Doktorska disertacija Univerzitet Singidunum. Departman za poslediplomske studije Beograd, 2013.стр. 61-62

The Nonproliferation Review, Summer 2000, http://cns.miis.edu/pubs/npr/vol07/72/72maerli.pdf

5. Press Release SC/7158, Security Council Unanimously Adopts Wide-Ranging Anti-Terrorism Resolution; Calls For Suppressing Financing, Improving International Cooperation, Resolution 1373 (2001) Also Creates Committee to Monitor Implementation http://www.un.org/News/Press/docs/2001/sc7158.doc.htm

6. Jović. R. Nikolić. D. Hemijsko – radijaciona dimanzija bezbjednosti. Fakultet za mediteranske poslovne studije, Tivat, 2011,

7. Ilijaš, B. Nuklearni terorizam-mogućnosti i posljedice, 2003, http://www.hrvatski-vojnik.hr/hrvatski-vojnik/992003/nuklear.asp

8. Anet, B. Assessing the Risk of Radiological Terrorism: How Real Is the Threat? The Fourth International Chemical Biological Medical Treatment Symposium (CBMTS lv); Spiez, Switzerland. Technical Program 2002, p. 13.

9. Кеча. Р. Тероризам – глобална безбедносна пријетња – Бања Лука, 2012

10. Џонатан Вајт: Тероризам, Београд, 2004

11. Vrđuka, A. Nuklearno oružje i suvremeni terorizam: doktorska disertacija Zagreb, 2010

12. Kalandrin. N. Društvene posljedice sekuritizacije oružja za masovno uništenje: nuklearni terorizam. Sveučilište u Zagrebu, Filozofski fakultet.

13. Nuclear Weapons: Who Has What at a Glance", The Arms Control Association web site, April 2004, Internet, 12/03/2005,

14. http://www.armscontrol.org/factsheets/ Nuclearweaponswhohaswhat.asp.

15. Natural Resources Defense Council – NRDC (2008.) „Nuclear Notebook: Global nuclear stockpiles, 1945 - 2006.“ Bulletin of the Atomic Scientists 62 (4).

16. Furedi, F. Poziv na teror. Rastuće carstvo nepoznatog. Zagreb: Naklada Ljevak, 2009

17. Kalandrin. N. Društvene posljedice sekuritizacije oružja za masovno uništenje: nuklearni terorizam. Sveučilište u Zagrebu, Filozofski fakultet. Zagreb, 2013

18. Milić, D. Bioterorizam I upotreba biološkog oružja, Revija za bezbednost, Centar za bezbednosne studije, Beograd. 2010, br. 2

19. Petrović D., Milinčić Lj. Biočanin.I. Genetički inžinjering u „vodenju“ biološkog rata. International Conference. Ekological safety in post – modern environment. 26-27. Juny 2009. Banja Luka, RS, BiH.

20. Радован Јовић, Andreja Савић: Биотероризам, биолошки рат, биолошко оружје, Београд, 2004.

21. Stanković, N. Terorizam i finansiranje terorizma. Evropski Univerzitet Brčko. 2014

22. Šepić, M. Tehničko – tehnološki aspekti prevencije I suzbijanja terorizma. Doktorska disertacija UNIVERZITET SINGIDUNUM Departman za poslediplomske studije Beograd, 2013.

23. National Infrastructure Protection Center, www.nipc.gov

24. Shinder D., Scene of the Cybercrime: Computer Forensics Handbook, Syngress Publishing, Inc., Rockland (USA), 2002

25. Xingan Li, Cybercrime: An Introduction, www.studycrime.com/crime/ cybercrime.php

26. M. Bogdanoski, D. Petreski, "Cyber Terrorism – Global Security Threat", Contemporary Macedonian Defence - International Scientific Defence, Security and Peace Journal; 13(24):59-72, July 2013.

27. Mitko Bogdanoski, Aleksandar Risteski, Marjan Bogdanoski "Steganography in Support of

the Global Terrorism", Book Chapter, In Terrorist Use of Cyberspace and Cyber Terrorism: New Challenges and Responses, IOS Press, 09/2015, pp. 15-28

28. Hadji-Janev, M, Bogdanoski M., "The Terrorist Threat to the Critical Information Infrastructure in South East Europe", Future Access Enablers for Ubiquitous and Intelligent Infrastructures. Pp:191-196.: Springer International Publishing. December 2015.

29. Вулетиќ, Д. Одбрана од претњи у сајбер простору. Београд, 2011

30. Cyber Operations and Cyber Terrorism, DCSINT Handbook No. 1.02, 15 August 2005.

31. Šepić, M. Tehničko – tehnološki aspekti prevencije i suzbijanja terorizma. Doktorska disertacija Univerzitet Singidunum. Departman za poslediplomske studije Beograd, 2013

POPULATION MOVEMENTS AS AN EXTERNAL THREAT TO NATIONAL SECURITY

Stefanija AGROTOVA[1]
Metodija DOJCINOVSKI[2]

Abstract: *The forms of threats to the national security from the past to present times are constantly changing, and a difference in their increasing complexity can be observed; they are more difficult to determine, and their prevention has become significantly difficult. What does the movement of the population indicate, and what are the explanations for this phenomenon? What are the forms of national security threats and the impact of migration on the countries' security? The attention in this paper work will be focused on the direct impact of migration on the national security of the Republic of Macedonia. The aim of this paper is to explain this phenomenon and to make a compact analysis of their impact seen as an external threat to the national security.*

Key words: *migration, population flow, external threats, national security*

Introduction

When considering the forms of security threats from the past and today, we can note that they have changed. The difference in the forms of threat from the past and those of today is that they have become more complex, more difficult to detect, hard to define and dominant; there is a need for efficient expertise for their detection, and what is more essential, their prevention has become significantly harder. Here, the key role belongs to the segments the security system is composed of. The effective preparation they have to have, the analysis of the events, information in due time and undertaking appropriate measures, will all give results when properly implemented, suitably directed. Even if the activities refer to the mitigation of the events, the main issue is the protection of the vital values which are central and essential for any national security.

In order to get a deeper understanding for this type of problems the national security faces, initially, we have to define the basic terms and the frame we are going to move in. Thus, first of all, we have to differentiate the terms and their meaning, then to conceive the theory and compare it with the realistic perspective, so that at the end we could reach a conclusion that will confirm or deny our projections. The field of research of this thesis is disclosed above when we started the topic on and about the national security threats. However, due to the divi-

---

[1] The Author is MSc, Eurpean University, Faculty of Detectives and Criminology -Skopje
[2] The Author is professor at the Military Academy „General Mihailo Apostolski" – Skopje

sion of the threats in several groups as internal and external, there is also a group of complex or combined threats, which makes the approach thereto different. In order the countries to have appropriate approach thereto they use integrated documents, legal foundations and regulations, national consensuses, optimized resources, implementation of policies, etc. What is the impact of the population movement, migrant and refugee crises, what are the repercussions on national security, why are these actual types of threats discussed as external threats for national security, how should the countries protect their interests and diminish the negative effects contained in these phenomena? These are the issues addressed throughout this thesis.

National Security

First and foremost, the term security has multiple meanings, such as condition, any organization, function or system, or, in a more complex sense, all of these together. The realization of security involves a large number of authorities and entities having the security as their primary task, which creates the possibility for separation of security as independent function.[3] In fact, the difference in defining the term occurs depending whether the term "security" is in correlation with the protective function of certain operational activities, depending on the political attitudes, etc. In literature, security is also explained as a function of any country usually organized in an overall system, and in keeping the national security it is crucial that this system permanently fulfils its task and duty. Security as a condition is explained as the protection of any goods, any values, and gains of the society.[4] It determines the area of activity and the stability actors, or the threats for the social values. Consequently, we can reach the conclusion that there are different forms of security conditions, but we are not going to explain them. What is important to point out is that depending on the sources of risks and threats, security is divided into: **external security** (protection of independence, sovereignty of the country and territorial integrity) and **internal security** (smooth functioning of the constitution, i.e. social – economic and political system in the country, protection of other values, goods, and vital structures of protection).[5]

What is the subject of our attention in this part? The security that refers to the society/country is actually **national security** which incorporates the internal and external security. National security refers to an independent country taking care for the protection of the overall physical and territorial integrity.[6] Some authors would derive national security from the so-called national interests: national survival, national security, independence and territorial integrity.

[3] Котовчевски, М., Национална безбедност на Република Македонија – *II*дел, Македонска цивилизација – Скопје, Скопје, 11

[4] Гоцевски, Т., Основи на системот за национална одбрана, Филозофски факултет Скопје, 2005, 27

[5] Повеќе за ова во Котовчевски, М., Национална безбедност на Република Македонија – *III*и*II*дел, Македонска цивилизација – Скопје

[6] Исто.,15

Forms of Threats to National Security

Before we start the explanation, or the analysis of the forms of threats, it is necessary to mention the general classifications of threats. The need of the society to ensure protection against external (as well as internal) threats provokes the creation of a significant response to the actions that have to be undertaken in terms of security. The part that has to cover the internal security includes all those dangerous social occurrences; and the easier way of response thereto is through their classification, definition and explanation. Thus, the society should recognize different types of forms and sources of risks[7], which generate social riots, destructive conflicts, threats that put at risk its very survival, etc. Throughout the history, societies have permanently been exposed to these types of threats, which can only be differentiated in terms of type, form, or intensity, but in this segment it is rather important to point out that it is a permanent phenomenon. When analyzing the forms of threats to national security there is another factor which makes a division to new groups and sub-groups. Here, we speak of armed and unarmed forms of threat, which certainly increases the number of threats and prevention thereof, and the responses become rather complex. In order to focus on our subject of interest, we are not going to consider these numerous forms in details. It is rather important to point out the overall protection that the society has to provide, necessary for the protection of the vital values, as we are dealing with many or different types of threats that theorists have divided in several groups. The first group comprises threats caused by social sources, such as social inequality, cultural differences, ideology, religion, politics, etc. Other types refer to threats caused by nature, such as climate, territory, geographic location, earthquakes, floods, etc. The last group covers the threats caused by technical/technological sources.[8]

Recent events inevitably drew the attention of people and countries and created a situation where all of them are concerned about the recent developments. Here, the focus is on the migrant crisis from the Middle East which has reflected its effects throughout the region and beyond, on the European continent. We are talking about a type of threat for the national security which, on the other hand, cannot be presented as an external form only. It is a phenomenon that later may also grow into a combination of threats, as it may change into an internal form of threat for the national security of the countries. As mentioned before, there are several groups of threats for national security, but the sources or the reasons for their development are divided into external (usually controlled and organized outside the borders of the domicile country) and internal (where the causes are in the domicile country). However, there is another combined form (unlike the other two) as a type of threats.[9]

---

[7] Георгиева Лидија, Менаџирање на ризици, Филозофски факултет – Скопје, 2006,80

[8] Котовчевски, М., Национална безбедност на Република Македонија – IIIдел, Македонска цивилизација – Скопје, Скопје, 13-16

[9] Исто., 21

Nowadays, any country is most likely to be threatened by external or internal threats to its national security. The analysts and experts are constantly warning regarding the new, more dangerous, modified, and sophisticated types of threats, which are becoming increasingly complex for research, as well as for the security services, and their number is rising. They certainly indicate to the more complex strategies that are necessary for any country, focusing at the same time to the permanent analyses of the new sources of threats in order to ensure respective protection therefrom.

Population Movement

What does population movement mean and why is this issue relevant to security? Movement of the population, as a phenomenon, occurs from the moment of the development of human perception until the present moment. When talking about population movement, we are referring to the term migration.[10] The responsibility for the current state of the world lies with the migration from the past, or the migrations that have been happening throughout the human history until now, all over the world.[11] Migrations are defined as internal and external, both having specific impact on the security of the country; but here we keep our focus on the external migrations that cause negative implications on national security. Currently, or more precisely in the course of the last few decades, the movements of population are important because of the change in the international agenda, their frequency, as well as because of the consequences they cause. In this segment, we may point out that national security and the security of the country (not eliminating the international security, which is not the subject of this work) is the most vulnerable. We should not ignore the different migration extents. It is an intercontinental movement of population, or intercontinental migrations, which also include migrations within the countries of a certain continent, within the regions of the countries, and migrations or movements of population from rural to urban regions, looking for different opportunities.[12] The reasons which cause migrations are divided according to certain factors, such as globalization or increased population, but among the more important classifications of population mobility is the one of the author Cta Bally. She distinguishes between two groups of population mobility. The first group is classified as forced migration, or migration caused by natural catastrophes, civil wars, ethnic and religious exile, political exile, etc. The second group is divided into three sub-groups and refers to the voluntary population mobility. This group covers the types of legal migrations which are used constantly. Furthermore, it includes the temporary legal migration, which is used for the purpose of education, employment, any type of business, tourism, etc., and the last is the illegal, or permanent migration of people from

---

[10] Миграција (лат.) што значи преселба на население од еден крај на земјата во друг, од село во град

[11] Повеќе за ова во Human migration guide,www.nationalgeographic.com

[12] Исто.,

one country to another.[13] The method of migration usually follows a certain pattern, within the family or a defined group of people. Any chain of migration usually starts with one member of the family, who sends money so that other members of the family could join. At the new location, the migrants are developing a chain of migration, which results in the creation of migrants' areas, where migrants from certain regions live or reside in certain suburbs or small towns.[14]

In terms of the explanation given above, there is a need for distinction of the following terms within the same context regarding population mobility and migration. It is rather important to make a distinction between an emigrant (one who leaves one's own country to reside in another) and an immigrant (person who comes to one country from another to settle). When speaking of a refugee, it means one who lives outside his domicile country because of fear from exile due to one's race, religion, nationality, belonging to a certain social group, or political attitude. On the other hand, a migrant flow means a group of migrants moving from a certain country, region or town to a certain destination.[15] However, it is an inevitable fact we should bear in mind is that any situation of this type may be prevented if analyzed properly. Here, we are talking of prevention[16] against some of the reasons that cause population mobility.

Movement of the Population as Threat to National Security

Many events from the recent past have forced the security experts to reconsider the importance of this process. Having in mind the changes imposed by the international environment after the end of Cold War and the analysis of security with regard to the threats, there is an occurrence of other types of non-traditional sources of threats.[17] Many countries generally accept the process of public policy which treats migration and security as a whole, where security has the main managing role and complete control thereon. Why do we take this phenomenon as a threat to security? It is due to the fact that migration may be a threat not only to individuals, but countries as well. The sovereignty[18] of the countries is guaranteed[19] and this is what defines them within the international system. Why is this pointed out? Because of the aspect of sovereignty itself which may be used by the countries in function of complete jurisdiction on their whole territory.

---

[13] Бали, С., Студии по безбедност – Движење на населението, Рутлец, 2008,471

[14] Повеќе за ова во Human migration guide, www.nationalgeographic.com

[15] Исто.,

[16] Георгиева Лидија, Менаџирање на ризици, Филозофски факултет – Скопје, 2006, 91

[17] Гоцевски. Т., Основи на системот за национална одбрана, Филозофски факултет Скопје, Скопје 2005, 28

[18] Суверенитетот е основниот елемент на државите кој ако сакаме да објасниме со еден збор би значело спамуправување. Повеќе за ова во Бузан, Б., Луѓе држави и страв, Академски печат, Скопје 2010, 57

[19] Гоцевски. Т., Основи на системот за национална одбрана, Филозофски факултет Скопје, Скопје 2005, 12

More precisely, here we are talking about the method that any country uses to controls its security system, the national borders, and customs administration, thus defining the conditions under which anyone may transit, enter, and stay in the country, under what conditions and for how long.[20] Here, it is important to mention the universal declaration of human rights, and especially the part where it is stressed that everyone has the right to demand asylum due to exile in another country. Hence, we are not saying that the right to obtaining the "refugee" status is guaranteed, but there is only the right to demand, which is confirmed in practice, as well. Therefore, the issue whether anyone is a refugee and whether he/she should be treated as such depends on the country, and the government, or the competent courts of the country where asylum is demanded. In this regard, we are talking about the international consensus for refugees' treatment which at the same time is a universal principle approved by many countries.[21] So far, we have seen that population mobility is considered as a threat for national security, and it belongs to the group of unarmed external threats. In this context, we may also mention the mass influx of refugees which occurs in cases when any of the neighbouring countries faces an internal conflict, a military conflict, civil war, natural disaster, etc. Civil wars may grow into international conflicts, while ethnic conflicts may turn into citizens' riots, etc, and they may have a spillover effect onto other countries. Such a situation may be a reason for the refugees to require protection in neighbouring countries (or the closer region) as the only way for help. As they are protected by the international legislation, they are placed in camps, refugee shelters, or temporary facilities rearranged for that purpose. Here, the host country faces the threat for its security because it is very likely that certain territories of that country may undergo ethnic structure changes. It may also cause problems related to the changes in the ethnic structure percentages, requests for certain rights, etc, by the new ethnic groups.

In cases of such phenomena, we should be very cautious and prevent any further escalations. What does it mean? In case of transiting, migrating, or movement of people from one country to another, there may not always be a complete control on the people entering the country because of the large number, or a wave of migrants, and even because of the illegal border crossings they are passing through. It means that here we face several types of problems. Among others, one refers to the false identity that migrants may present in order to pass the border, or another refers to the inability of the security services to check the data presented, and make a security control in a short period of time, etc. These situations are rather serious for the security of any country and there is no national security that is immune to such circumstances, regardless whether and to what extent this issue is covered by security policies. Migrations may lead to conflicts and even wars. Furthermore, there are other more complex unconventional threats that may use such situations. There is no doubt that migration may help

---

[20] Бали, С., Студии по безбедност – Движење на населението, Рутлец, 2008, 471
[21] Исто., 473

terrorism. The verification of this can be found in practice. Recently, we witnessed a complete abuse of migrations. The events in Paris in November last year showed the misuse of the flow of migrants and refugees who came from Syria, and through the Balkans and Middle Europe reached France in order to organize attacks in the capital city that resulted in fatalities. In this case, the security system failed in the domain of intelligence, which, if organized at its highest level could, at least, have warned of and even prevented the incident. Now, in regards to the issue on warning in due time, we should point out that early warning has a crucial role in the overall security system. Therefore, when speaking about migrant crises or any other security threats, we should know that the foundation of the entire system is the intelligence. It helps in organizing preventive actions, or if any threat is realized it may prevent its escalation, and the only goal thereof is to avoid any other events such as the one in Paris.

Conclusion

All countries face different types of threats, regardless whether they are external, internal, or of combined forms. Very often the threats are ambiguous and sometimes their detection is problematic, which limits the creation of a national policy which would be the foundation for the reaction of the country when responding thereto. Since threats can be found anywhere, and the resources of the country are limited, especially for the developing countries as our country, there is a need for establishing a criterion according to which certain threats will be considered as irrelevant or worth of monitoring only. When speaking about monitoring of threats, it should be conducted on a constant basis in order to develop the criteria that would define the priorities when dealing with a growing intensity of threats. Certainly, population mobility is perceived as a threat for national security, because as we have mentioned in this thesis, it is a threat that may jeopardize a large number countries' vital interests, such as the social cohesion, economy, the possibility of causing conflicts, etc.

The fear of each country is obvious, and the current events prove that the security of any country is truly sensitive to any population mobility, regardless of the reasons therefor. However, the conclusion should not be that the best policy of the countries for protection of their security is to exclude migration. It is important to provide adherence to the international legislation, there should be a wider consideration of the threats, their assessment, constant monitoring of the current risks from internal conflicts, terrorism, proliferation of weapons, trans-national organized crime, etc., and it may be achieved by a comprehensive approach and formulation of national security policies. Regardless of the effectiveness of the national security system, shortcomings may always occur. The threat arises when the actual policy has no relation to the actual situation in practice. Therefore, it is not only important to understand the threats as such, but also to understand the weaknesses of the country being subject to security.

REFERENCES:

1. Бали, С., Студии по безбедност – Движење на населението, Рутлец, 2008

2. Бузан, Б., Луѓе држави и страв, Академски печат, Скопје 2010

3. Дончев, А., Современи безбедносни системи, Факултет за општествени науки Скопје, Скопје 2007

4. Георгиева Лидија, Менаџирање на ризици, Филозофски факултет – Скопје, 2006

5. Гоцевски. Т., Основи на системот за национална одбрана, Филозофски факултет Скопје, Скопје 2005, 28

6. Котовчевски, М., Национална безбедност на Република Македонија – II дел, Македонска цивилизација – Скопје, Скопје

7. Кузев, С., Стоилова, Н., Национална безбедносна концепција и стратегија – авторизирани материјали, Европски Универзитет Скопје, Скопје 2012

8. Котовчевски, М., Национална безбедност на Република Македонија – III дел, Македонска цивилизација – Скопје, Скопје

9. www.nationalgeographic.com

MODELING OF THE COMBUSTION PROCCESS IN INTERNAL COMBUSTION ENGINES BY VIBE METHOD

Elenior NIKOLOV[1]
Dame DIMITROVSKI[2]
Drage PETRESKI[3]

Abstract: *The processes that are implemented in the IC engine during itsoperationare very complex. The pressure flow in thecylinder engine is shown by a (p,V) diagram or a developed diagram of the pressure depending on the angle of rotation of the crankshaft, and these diagrams are used to analyze the effectiveness of the engine.*
However, in order to obtain these diagrams of the change of pressure and temperature, in the development stage of the engine, or in order to observe how a certain change of any part of the engine affects it, the engine processes need to be mathematically described as realisticly and precisely as possible. Therefore, this paper presents a calculation and modelingof the pressure and temperature flow in the cylinder of an engine according to the theory of VIBE.

Key words: *compression, combustion, expansion, pressure stream, VIBE method, MS EXCEL*

Introduction

The processes occurring during the IC Engine operation are very complicated.The pressure in the cylinder of the IC engine is described with a (p, V) diagram or a developed chart of the pressure depending on the angle of rotation of the crankshaft, and these diagrams are used to analyze the performance of the engine.

[1] Assistant Proffessor at the Military Academy, Skopje, RM
[2] Mechanical Engineering Faculty-Skopje
[3] Proffessor at the Military Academy, Skopje, RM
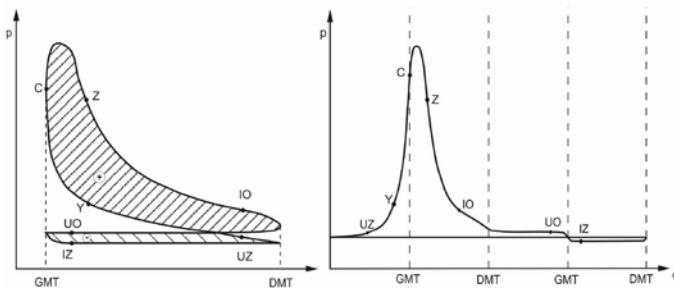
Figure 1. a (p, V) diagram (left) and a developed pressure diagram (right)
of an engine cylinder

The diagram (p, V) and the developed pressure diagram are formed by measuring the pressure in the engine cylinder, during operation. On the other hand, to be able to obtain such pressure changes diagrams for a certain engine in the development stage of the engine, or to be able to see how a certain change on a part the engine affects that engine, the processes in the engine should be described mathematically as accurately as possible.

Here, the calculation of the pressure course and the temperature in the engine cylinder will be shown according to the theory of Vibe.

The theory of VIBE

The first modern theory of analysis of the combustion process was published in 1970 by Vibe. Her mathematical model allows the calculation of the course of the actual process of combustion in the engine chamber. Today, this theory has been further developed and is used along with other theories, which also occurred in the meantime.
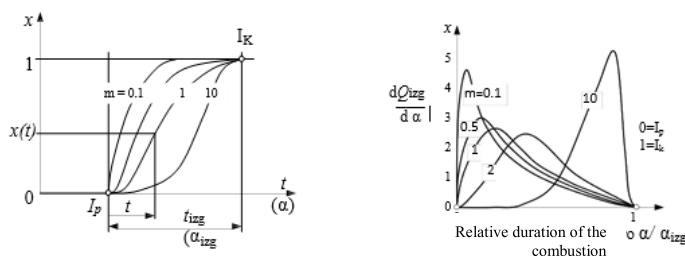

Figure 2. Vibe`sfunction x, and the law of releasing heat with various values
of the combustion factor m

The consumption of fuel mass in the course of combustion is described by the Vibe's function x. It shows **the mass fraction of burnt fuel from the beginning of combustion to the moment of observation**:

$$x(t) = \frac{m_G(t)}{m_{G,proc}} = 1 - e^{C\left|\frac{t}{t_{comb}}\right|^{m+1}} \tag{6.1}$$

where: $^m G^{(t)}$ - the mass of fuel that has burned from the start of the combustion (t = 0) to the point of observation t; $m_{G,proc}$ - total mass of fuel in the cylinder in the process; C - constant determined on the basis of a defined end of the combustion; t - time elapsed from the start of combustion (the image point IP 26) to the point of observation; t_{comb} - total duration of the combustion (from the IP to IK); m – Vibe's factor of combustion.

The point where the 99.9 % fuel $^m G$, procin the cylinder burns is taken as the end of combustion, and the constant C is derived in the following form:

$$C=\ln\left(1-x(t_{comb})\right)=\ln\left(1-0.999\right)=-6{,}908$$

As the released heat is equal to the product of the mass of burned fuel and the lower fuel value: $Q(t) = m_G(t) \cdot Hd$, so the **Vibe's function shows the release of heat during combustion**. If time t is expressed by the angle of turning of the crankshaft α, we get:

$$x(t) = \frac{m_G(t)}{m_{G,proc}} = \frac{Q(t)m}{Q_{comb}} = 1 - e^{-6.908\left|\frac{t}{t_{comb}}\right|^{m+1}} \tag{2}$$
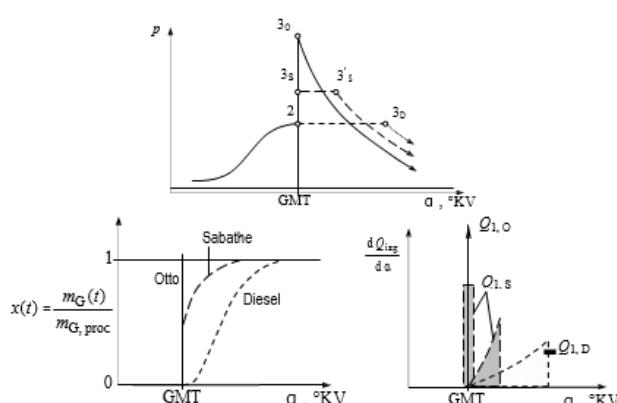

Figure 3. Combustionlaw and law of heat releasing in ideal processes

The total heat released in the combustion is equal to the heat which enters in the process: $Q_{comb} = Q1$. However, part of the heat Q_w is lost with its passage through the walls that enclose the space of the combustion of gases in the cylinder,thus, the heat Q_{comb}, spent on heating the gases in the cylinder is smaller:

$$Q_h = Q_{comb} - Q_W \qquad (3)$$

or expressed indiferential form:

$$\frac{Q_h(t)}{d\,\alpha} = \frac{Q_{comb}}{d\,\alpha} - \frac{Q_W}{d\,\alpha}$$

Here:

$\dfrac{Q_h(t)}{d\alpha}\ \dfrac{[J]}{°CS}$ - the speed of release of heat during combustion (combustion law, law of released heat)
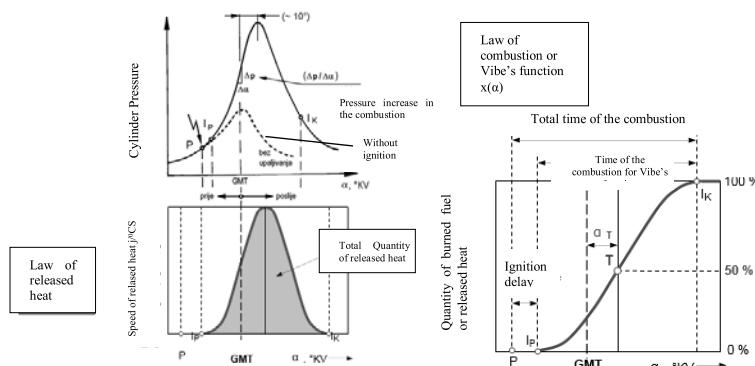
Figure 3. Combustionlaw, law of releasing heat and theduration of combustion in Otto`s engines

Symbols: I_K–combustion end, I_P–combustion start, P - ignition (occurrence of spark), T - combustion hotspot. The shaded area shows the total fuel in a process, or total quantity ofreleased heat.

Using these values,the pressure and temperature increase during combustion can be calculated. The calculation is performed in small time steps Δtie $\Delta\alpha$. The calculation parameters, the Vibe's factor m of combustion and the duration of combustion α_{comb} depend mostly on the whirls in thecylinder, and are derived by analyzing a great number of recorded indicator diagrams of various engines. Their borders equal: m = 0,1 ... 4, α_{comb} = 45-150 ° CSh.

Modeling the IC engines proccesses

Considering the fact that the processes, taking place in the engine cylinder during its operation are very complex, certain assumptions are introduced that change the image of the diagram, and thus, facilitate the calculation.

The introduced assumptions are the following:

1. Charging lasts until the bottom dead center.
2. The pressure in the cylinder during charging is constant and equal to the pressure at the start of the compression.
3. The compression in the cylinder starts at the bottom dead center and ends with the beginning of the combustion process.
4. Compression is presented as a polytropic change of state with an average exponent of polytropic compression.
5. After the combustion, the expansion continues which is also presented as a polytropic change of state with an average exponent of polytropic expansion.
6. The expansion lasts until the bottom dead centre when the exhaust stroke starts.
7. The flow of pressure and temperature during charging and exhaust stroke is lowered in this calculation.

If these assumptions are transmitted to the diagram (p, V) and to the developed diagram of the pressure, the original diagrams will take the form shown in Figure4.
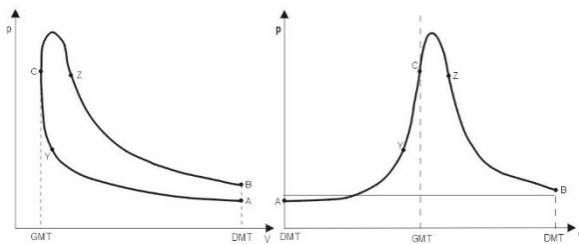
Figure 4. a (p, V) diagram (left) and a developed pressure diagram (right) of the mathematical model after the introduction of assumptions 1.-7

Point A represents the point at the beginning of the polytropic compression, point Y represents the beginning of the combustion, point Z the end of the combustion, and point B the end of the polytropic expansion. In point Cit comes to the change from compression during combustion into expansion. We can see from this that the calculation will be divided into three different parts:

1. compression (from A to Y)
2. combustion (from Y to Z)
3. expansion (from Zto B).

Before displaying the calculation in parts, the so-called volume function ψ (α) will be introduced, which at a later calculation is often used.

The volume function ψ (α) represents the relation of the volume in an arbitrary point position of the piston and volume at the start of compression. Thus, by knowing the function of the volume ψ(α), the volume at the beginning of the compression V_A and the degree of compression ε with the following expression:

$$V = \frac{V_A}{\varepsilon} \cdot \psi(\alpha) \tag{4}$$

We can calculate the volume V for any position of the piston, determined by the angle α of the crankshaft turning of Top death center (TDC).

The Volume function ψ (α) is determined by the expression:

$$\psi(\alpha) = 1 + \frac{\varepsilon - 1}{2}\left[(1 - \cos \alpha) + \frac{1}{\lambda_H}\left(1 - \sqrt{1 - \lambda_H^2 \sin^2 \alpha}\right)\right] \tag{5}$$

where:

$$\lambda_H = r\,/l, \text{-ratio of the piston rods.}$$

Compression

As already stated, the compression is represented as a polytropic change of state, which means that if the state of the gas at point A is known, you can simply determine the pressure and temperature at the end of the compression at point Y.

Pressure P_A in the cylinder at the beginning of the compression, based on the experience, can be calculated by setting the heat balance:

$$(T_o + \Delta T) + c_{pi} \cdot m_i \cdot T_i = c_{pA}(m + m_i)T_A \tag{6}$$

Where:

c_p[J/kgK] - specific heat capacity of a fresh working medium at a constant pressure;

c_{pi}[J/kgK] - specific heat capacity of residual gases from the combustion at a constant pressure;

c_{pA}[J/kgK] - specific heat capacity of the gas mixture in the cylinder (point A) at a constant pressure;

m[kg]   - mass of fresh working medium that has entered into the cylinder;

m_i [kg]   - mass of residual gases from the combustion;

T_o [K]   - ambient temperature;

ΔT[K]   - increasing of the temperature of the fresh working medium after heating bythe hot walls of the cylinder and the charging composition;

T_i[K]   - temperature of residual gases from the combustion;

T_A[K]   - temperature of gasesin the cylinder at the beginning of the compression.

By assuming $cp \approx cpi \approx cpA$ the following is derived:

$$T_A = \frac{T_0 + \Delta T + T_i}{1 + \gamma} \tag{7}$$

The rate of charging λl and the factor of residual gases from the combustion γ are calculated using the expression:

$$\lambda_l = \frac{T_0}{T_0 + \Delta T}\left[\frac{p_A}{p_0} - \frac{1}{\varepsilon - 1}\left(\frac{p_i}{p_0} - \frac{p_A}{p_0}\right)\right]$$

$$\gamma = \frac{T_0}{\left[p_A - \frac{1}{\varepsilon - 1}(p_i - p_A)\right]} \cdot \frac{T_0 + \Delta T}{T_i} \cdot \frac{1}{\varepsilon - 1} \tag{8}$$

where:

> p_A[Pa] - pressure in the cylinder at the beginning of the compression;
> p_i[Pa]- pressure of the exhaust stroke;
> p_o[Pa] –ambient pressure.

The specific volume of gases in the cylinder at the beginning of thecompression VA is equal to:

$$V_A = \frac{\Re T_A\left[\lambda \frac{Z_0}{M_z} + \frac{1}{M_G}\right]}{(1 + \lambda \cdot Z_0)} \tag{9}$$

for OTTO engine

$$V_A = \frac{\Re T_A}{M_z \cdot p_A} \tag{10}$$

for Diesel engine

Where:
$\Re$ [J/kmol K] general gas constant (8314J/kmolK);
λ [-] - air factor;
Z_o kgZ/kgG] - stoichiometric ratio of fuel and air;
M_Z [kg/kmol] - molecular mass of air (28.96 kg/kmol);
M_G [kg/kmol] - molecular mass of fuel (114 kg/kmol).
where the stoichiometric ratio of fuel and aircan be calculated from:

$$Z_0 = 137.85 \cdot \left[\frac{c}{12.01} + \frac{h}{4.032} + \frac{s}{32.06} - \frac{o}{32}\right] \tag{11}$$

Where:

c [-]- share in mass of carbon in the fuel
h [-]-share in mass of hydrogen in the fuel
s [-]- share in mass of sulfur in the fuel
o [-]-share in mass of oxygen in the fuel.

The pressure p_Y and temperature T_Y at the end of the compression are equal to:

$$p_Y = \left(\frac{v_A}{v_Y}\right)^{n_k} \cdot p_A$$

$$T_Y = \left(\frac{v_A}{v_Y}\right)^{n_k-1} \cdot T_A \tag{12}$$

where the specific volume at the end of the compression is equal to:

$$v_Y = \frac{v_A}{\varepsilon} \cdot \psi(\alpha_Y) \tag{13}$$

$\alpha_Y[°]$ - turning angle 0CSh for a moment at the end of the compression relative to TDC.

Combustion

The combustion process is much more complicated than compression and expansion, so it is possible to present it with some polytropic change of the state. During the combustion process, after the change of state because of the change in the volume, there is intense heat upon fuel combustion, which changes its intensity.

Therefore, the combustion process is divided into small time intervals, as shown in Figure 5.
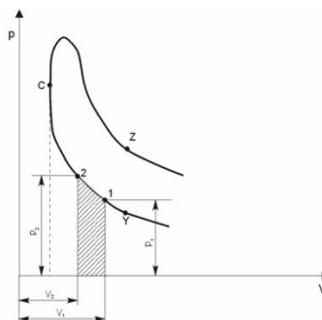
Figure 5. Scheme of the division of the combustion process into small time intervals

For each interval the pressure and temperature at the end of the interval is calculated, based on the pressure and temperature, at the beginning of the interval. The calculation starts with the known pressure and temperature at the end of the compression, and is repeated until the end of the entire process of combustion. Thus, the number

of steps in the calculation will depend on the length of the combustion and the size of the small intervals.

The smaller the interval is, the more accurate the smaller calculation will be, but it will need a bigger number of steps, which means that the calculation will be longer.

Expansion

The calculation of the combustion process endsby calculating the temperature and pressure at point Z, which is the end of combustion. This point, the pressure and temperature that belong to it, represent the initial values for the process of expansion. This process is represented by a polytropic change of the state, with an exponent n_e. Accordingly, the pressure and temperature at the end of the expansion can be calculated by:

$$p_B = \left(\frac{v_Z}{v_B}\right)^{n_e} \cdot p_Z$$

$$T_B = \left(\frac{v_Z}{v_B}\right)^{n_e - 1} \cdot T_Z \tag{14}$$

Application of the VIBE'S method using a program made in excel

An Excel document is designed which allows thermodynamic, kinematic and dynamic calculation of the Otto engine (four-stroke, four-cylinder). The program contains all the formulas for calculating the pressure indicator by VIBE's theory, which is briefly explained in the previous chapters, and is also shown estimating the flywheel of the engine.

The program provides an example of an engine - "spark-ignition 4-stroke", Ford Fiesta 1.4 16V Trend, gasoline, 2005. This car, and the necessary inputs for the program are given in Figure 6.

Figure 6. Ford Fiesta 2005 series with a specification chart.

The data on the speed, diameter and step of the engine, and the degree of compression is entered into the program, and with calculations by the VIBE's method (p, α) diagram for the pressure indicatorof the engine is obtained as a result, given in Figure 7.
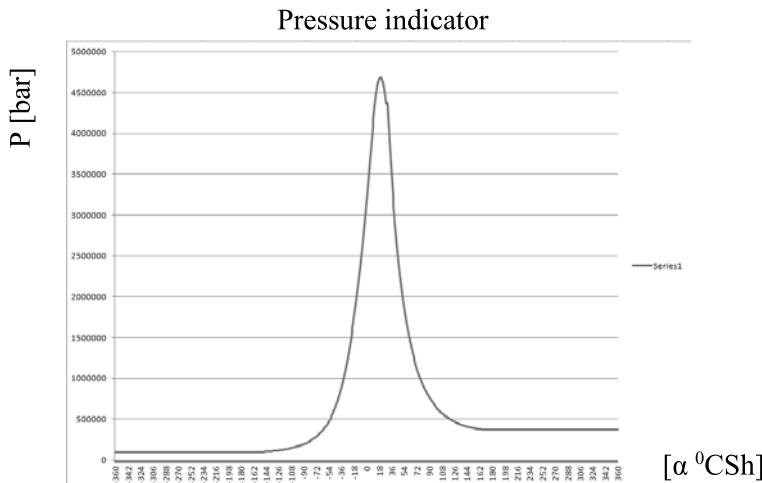
Figure 7. Pressure indicator according to the VIBE's method

Conclusion

Modelling is a necessary part in the analysis and evaluation of the operating processes of the technical system. This paper presentsmodeling of the combustion process in internal combustion engines and the application is shown by applying the Vibe's method for simulation and modeling of the combustion process.

The combustion process and the operating cycles of the internal combustion engine are theoretically explained according tothe aforementioned method, and its application using a program designed in Excel for a type of a motor vehicle.

The results provided by the given Excel program is a simulation of the working processes in internal combustion engines expressed through the indicator parameters of the working cycle shown by P-α diagrams. This program can be used to perform analyses of these parameters and comparative analyses of different types of internal combustion engines, especially in the design phase of the manufacturing process of internal combustion engines.

REFFERENCES:

1. Lee,W.,Schäfer,H.-J.:VerbrauchsreduzierungamOttomotordurchOptimierungvonBrennraumform und Verdichtungsverhältnis,MTZ 1982,Heft 7/8,279-284.

2. Pischinger,R.,Klell, M.,Sams, Th.:ThermodynamikderVerbrennungskraftmaschine, zweiteAufl., Springer,Wien - New York, 2002, ISBN 3-211-83679-9.

3. Pischinger,R.,Kraßnig,G.,Taučar,G.,Sams,Th.:ThermodynamikderVerbrennungskraftmaschine,N eueFolgeBand5,Springer-Verlag,Wien - New York 1989,ISBN3-211-82105-8.

4. Smyth,J.,G.,Sczomak,D.,P.,Indra,F.:CentralInjection-theHeartoftheNextGenerationDI-Gasoline Engine? 10. AachenerKolloquiumFahrzeug- undMotorentechnik 2001

5. Vibe, I.,I.:Brennverlauf und KreisprozeßvonVerbrennungsmotoren,VEBVerlagTechnik,Berlin, 1970.

6. Windsor-Smith,P.:Engines,InternationalDesignReview,AutomobileEngineer, 14 May 1965, 210-221.

355.58.071.2 (430)

Review

DEVELOPMENT OF THE CIVIL DEFENCE IN GERMANY

Sergej CVETKOVSKI[1]

Abstract: *Civil defence, in the beginning as a term referred to public and private measures for protection of the civilian population in a case of war. Later, especially evident in the 80s of the last century, the concept of civil defence extended over to the dangers in time of peace and emergencies. According to the proclaimed policy and the conception of civil protection in Germany, the general view is that the priority democratic objective in the overall state policy is to protect the citizens and institutions from all sources and forms of endangerment which occur in various emergencies. To effectively achieve this goal, Germany is modernizing the existing system of civil defence. The federation has the main responsibility in terms of the functioning of this system, and in turn delegates the responsibilities to the lower levels through states and regions to the level of the direct actors- the citizens. The overall protection, defence, and rescue structure is based on several basic subsystems and tasks, including: self-protection, disaster recovery, information, and warning, health care, and protection of material goods. The change in the security environment after the Cold War visibly affects the increasing focus of the federation on radiological, chemical, and biological hazards, and the consequential development of special CBRN analytical forces at the state level. The established crisis management system, based on the risk analysis, is only a supplement which makes civil defence positively more complex. The current system of civil defence is in a continuous upgrading and development process, and hence a research question is posed: are there fully formed perceptions on the future role of this system; and regarding this, can this system in the near future meet the requirements placed before it, i.e. preparedness to respond to emergencies and preparedness for civil support to missions including the German Armed Forces.*

Keywords: *Civil defence, crisis management, emergency, disaster, CBNR.*

Introduction

Globally, civil defence is considered as a humanitarian task, and has special protection under international law. In order to regulate this area, an additional protocol to the fourth Convention relative to the Treatment of Prisoners of War, at Geneva, July 27, 1949, contains provisions on establishment of special protection of the facilities and staff, along with an internationally standard civil protection (defence) symbol. The same protocol defines civil protection, including 15 humanitarian activities in Article 61. Among others regulations, the additional protocol in Section II, Chapter VI provides a general protection of civilian organizations of the civil protection and their staff; it specifies the conditions for the functioning of civil protection on occupied territory, neutral parties, and other states non-parties to the conflict, as well as coordinating international organizations; and points out the conditions under which the activity of civil protection can be banned if civil protection forces are used to perform actions which are

---

[1] The Author is Assistant Proffesor at the Faculty of Philosophy – Skopje, Institute of Security, Defense and Peace

harmful to the enemy as actions, such as actions outside the scope of their own duties. (МКЦК 2002, 287-295)

In accordance with the Constitution of the Federal Republic of Germany, the competence for legislation in the field of civil defence lies with the federation. The law is however largely enforced by the Federal State administration by delegated authority. The tasks of the federation are carried out by the Federal Ministry of Interior, by other ministries within their competences, by the Federal Office of Civil Protection and Disaster Assistance and by the Technisches Hilfswerk (THW). Risk aversion in peace times, and restoration of damage in the event of a disaster or in similar emergencies are by contrast a matter of the states, which maintain amongst other things the civil protection procedures for this purpose (BBK 2016). The specialist area of Economic Affairs, responsible for managing and providing budget to supplement civil protection on site, is also a delegated responsibility regarding civil defence. This includes storing and maintaining the equipment, as well as funding the costs related to relievers.

1. Structure and Function of Germany's Civil Defence System

In accordance with the Civil Defence Act of 1997, civil defence includes the following tasks (BBK 2016):
- self-protection,
- civil protection,
- alerting the population,
- protective structures,
- health-protection measures,
- measures to protect cultural property, and
- regulation of residence

1.1. Self-protection

Civil defence encompasses all areas of life, and may not be understood merely as a task for the state to carry out. It will always rely on self-assistance and individual initiative.

The Civil Defence Act of 1997 underlines the significance of self-assistance (help) of the population by virtue of mentioning it explicitly in Section 1, which states as follows: "Official measures shall supplement the self-help of the population" (BBK 2016).

The self-protection encompasses all measures taken by the population which are suited to prevent, alleviate or remedy hazards which are impending or have occurred in the residential and working environments, in a case of need of protection particularly of life and health, vital facilities, and goods. This principle comprises all measures intended to be provided by individuals and the community on a voluntary basis by doing what is within individual ability to counter these dangers. In order to support self-protection of the citizens on their own responsibility, official basic and supplementary measures are provided, where the establishment, promotion, and management of these measures is a duty of the local authorities in accordance with Section 5 of the Civil Defence Act. The

local authorities support tasks focus partly on informing and training the population in self-protection. To accomplish this, the local authorities have to be able to provide their availability to the working organisations in accordance with Section 20 of the Civil Defence Act. This refers to the public fire fighting services, units, and facilities of the authorities responsible for civil protection, the Bundesanstalt Technisches Hilfswerk, which provides technical assistance, and private organisations. The general training takes place in peacetime on self-protection topics in the context of first aid training (BBK 2015). The municipalities which belong to a Governmental district are supported in terms of administration and specialist knowledge by the administrative authorities at the district level, as well as by the civil protection organizations.

1.2. Civil Protection as a Subsystem of Civil Defence - Disaster Protection

With respect to self-protection, it must be underlined that people cannot protect themselves against all possible disasters. They need assistance, they may need to be rescued, and receive support if serious accidents occur; in the event of natural disasters, and of any hazard which they are unable to cope with on their own. That is why the mass and organized form of population protection is established - the civil protection.

Civil protection, which also encompasses preventive protection measures, which already have to be prepared and carried out in peacetime, as was already stated is integrated into civil defence by Civil Defence Act of 1997. Therefore, the federation and the states are working closely together in the spirit of partnership in order to have a combined, powerful system of disaster protection, which they can set into function if an incident takes place. This is largely based on voluntary helpers from private and public civil protection organisations. Whilst Art. 73 of the Constitution (Grundgesetz) places the protection of civilian population in a case of defence within the legislative competence and hence the responsibility of the federation, the peacetime civil protection lies within the reasonability of the states in accordance with Art. 70 of the Constitution. For personal, technical, and financial reasons, however, it would not make sense for the federation and the states to maintain support systems which would independently combat incidents or disasters deriving from different causes, but having similar effects. The federation and the states therefore work closely together to enable peacetime civil protection, undertaking tasks aimed at protecting of the population in a case of defence (war), and vice versa, so that the additional civil defence facilities funded by the federation can also be made available to the states in order to avert hazards in peacetime. The cooperation between the federation and the states was improved aimed at achieving a synergy and acquiring a joint, powerful system of disaster protection, which can also respond in an emergency (ZSKG 2009).

In the field of civil protection, the federation and the states rely on voluntary helpers working in civil protection organisations in the Federal Republic of Germany. Helpers enlisted to serve in civil protection can be released from military or alternative

service. The essential contributing private and public relief organisations are:

- The fire fighting service
- The Workers' Samaritan Federation (ASB)
- The German rescue association (DLRG)
- The German Red Cross (DRK)
- Johanniter-Unfall-Hilfe (accident assistance) (JUH)
- The Federal Institution for Technical Assistance. (THW)

The civil protection units of the states within the organisations operating in the areas of fire protection, NBC protection, medical assistance and care, are provided with additional equipment and are trained by the federation. In such cases, the equipment costs and the help provided on site are covered by the federation. The Federal Ministry of Interior determines the nature and scope of its funding contribution in agreement with the competent highest state authorities (Civil Defence Act –ZSKG 2009, Section 11:1).

The units and facilities of the Federal Institution for Technical Assistance (THW) provide back-up for civil protection in case of defence regarding rescue and technical assistance.

The main tasks of the Federal Office of Civil Protection and Disaster Assistance (BBK) in this context are the development and procurement of additional equipment (such as fire fighting vehicles, NBC reconnaissance vehicles, vehicles for casualty evacuation, and decontamination of persons), development of educational content for the area of civil protection, as well as additional training of managers and trainers in civil protection, as part of their civil defence tasks. In addition, the federation plays a major part in the *German air rescue*.

1.3. Population Warning

During the Cold War extensive systems were constructed for population alert both by the Civil Protection of the Federal Republics as well as of the civil defence of the GDR. The two main components of the warning systems were sirens to alert and the shared use of broadcasting for warnings and information on the risk situation.

Because of the historical change in Central and Eastern Europe in the early 90s, the security situation in Europe has improved dramatically. This improvement made it possible to reduce the expenses for the defence sector, which were originally aimed at a large-scale and life-threatening aggression against Germany. As part of this re-structuring, the duplication was eliminated by the additional provision on the federally owned Warning Service, intended exclusively to the case of war. The expensive civil defence alert systems were taken out of service in late 1992. As part of this discussion in 1997, the legislature decided that those responsible for warning the authorities in the case of incidents and disasters, in future will also warn of the dangers that threaten the population in defence situations. About 40,000 sirens out of the former CP- sirens were provided for free to the municipalities, and they continue to operate locally for

the purposes of fire safety and civil protection at the expense of the municipalities.

After dismantling of the civil defence siren network, the federal and the state authorities agreed to use the radio as a major warning means for large-scale emergencies, disasters, and in the case of defence. The use of radio offers the opportunity not only for announcing dangers, but also for conveying codes of conduct to the population. For rapid transmission of warnings to the broadcast media of the federal and state authorities the satellite-based warning system (SatWaS) is available. In some states for alerting the population in areas or around structures with particular risk potential (as flood areas, nuclear power plants, chemical plants), sirens and loudspeaker vehicles are used. In case of predictable danger, the danger announcements could also be set as subtitles on television, and entered on the Internet by an Internet provider (European Commission 2015).

The federal government retained its jurisdiction in detecting the air war danger, and the large-scale radiological hazards. Although an immediate territorial threat to Germany with conventional military means is unlikely, there can be potential hazards, especially from regions outside the European area of security and stability, such as by unstable countries, and dictatorial regimes. The dissemination and transfer of weapons of mass destruction and improved scope of their means of support (missiles), is also increasingly growing into a threat to Germany. This requires effective early warning and preventive measures for the protection of the population, including the population warning heard before the particular hazards in a case of defence. The federal government warning is based on the existing procedures in the countries for broadcasting warnings in case of large-scale hazards, and it complements the existing instruments for warning in case of defence. Hence, the federal and state authorities jointly use the radio alarm.

1.4. Sheltering

The protective structures refer to construction measures, and infrastructures suitable to protect the people, property, and social institutions (see Critical Infrastructures) from the effect of destruction, sabotage, and weapons. Although there can be no complete and absolute protection against any damaging event, thanks to this structural and technical measures a great deal of mitigation can be done, and therefore a vital safety can be achieved.

Until 2007, the widespread Protection Space Construction Concept for structural population protection mainly included the structures of civil protection, including the construction or refurbishment of shelters, as facilities under the international humanitarian law in accordance with the Hague Convention. As a result of the changed security situation after the end of the Cold War, the Protection Space Concept was no longer suitable for the temporary immediate threats (asymmetric threats, natural disasters, international terrorism). The shelters which had been utilized in the case of defence at the end of a gradual escalation were no longer effective (Walter 1965, 269-274),

especially given the long period of time which would be necessary nowadays for the population to take shelter there.

For this reason, the Federal Government has decided, in consultation with the states in 2007, to abandon the previous concept. The existing public shelters, which are managed by the Federal Office for Civil Protection and Disaster Assistance, as well as the existing private shelters, are gradually released from the civil protection service. After a coordinated process of discharge, they are now available to the owners for unrestricted use and exploitation. After the all-risk approach analyses, the alternative structural and technical protection concepts have been developed in the Federal Office for Civil Protection and Disaster Assistance. These help prevent any damage caused by current potential threats to existing or new buildings, including the field of Critical Infrastructure. The future risk analyses should identify the vulnerability of particularly sensitive critical infrastructures, and the adequate construction measures shall minimize the possible damages.

1.5. Public Health Protection

Protection of health enjoys high priority in accordance with the German Constitution. The new strategy includes health care as a relevant topic in addition to civil protection and disaster relief. It is the basis for the joint efforts of the federal, state, and local governments in providing the adequate health care. The Federal Office for Civil Protection (BBK) established a department - Sanitary Civil Protection, Research and Technology - which covers the areas of health, disaster medicine, medical self-help, and health protection against CBRN, and disease hygienic management.

The activity at the federal level takes place particularly in those danger zones that states cannot cope on their own, or are incapable of overcoming them. This assessment is also reflected in the threat analyzes of the states where the focus of the activities of the Federal Government is in the area of dealing with injured by a mass conventional attack or CBRN materials. The medical response to the large-scale, nationally-significant hazards and damage scenarios must include the entire rescue chain. This includes not only the self-protection and first aid, but also a pre-clinical treatment, patient transportation, as well as ambulant and clinical care of the injured. A harmonized approach is needed for an overall management of mass casualty injured (MCI) by the states. This applies equally to the linking of national policies with the international activities in the civil protection. In addition to the harmonization and coordination, the provision of resources which are in short supply is also required.

The department helps to ensure health protection in nationally important incidents and in the case of defence. Hence, priority is given to the care for the injured in a mass attack by chemical, biological or radioactive hazardous materials. The roles and responsibilities are analytical, planning, conceptual, advisory-informative, and harmonizing.

The following tasks are the thematic priorities:

- Medical advice, and support to departments in a unified planning of health care;

- Developing and harmonizing the concepts for health protection at the national and international level, developing interdisciplinary and interdepartmental concepts;

- Medical care in major incidents, conceptual requirements for hospital alarm plans and medical material storage / prevention planning;

- Medical prevention planning for large-scale and / or nationally significant CBRN dangers;

- Standards for organization, resource planning and tactics, logistics, quality management, staff and equipment in medical civil protection;

- Risk assessment and evaluation of CBRN for purposes of medical civil protection;

- Developing structures to provide and exchange information, and to build networks;

- Harmonization of health policies and activities of the states, relevant to the performance of obligatory tasks;

- Advice and assistance to states and local authorities in performing their tasks regarding special issues of protection against chemical, biological, and radioactive hazards, and mass casualties (Arbeitsgruppe der Hilfsorganisationen 2006).

1.6. Cultural Property Protection

The protection of cultural property during armed conflicts is a matter of the international humanitarian law, and is implemented in the Federal Republic of Germany under Article 3 of the Hague Convention of May 14, 1954, and it has already been already implemented in peacetime.

The Federal Office for Civil Protection and Disaster Assistance (BBK) is responsible for this special civil defence task through delegated authority to the Federal States. The main tasks transferred from BBK are the following: presentation of the wording of the Hague Convention; the backup filming (on microfilms) of nationally-valuable archives and library materials; security storing of films in the Central Storage Site of the Federal Republic of Germany; labelling and documenting valuable immoveable cultural property of national importance in photographs; the development of guidelines and concepts for building salvage spaces for movable cultural property; the professionally competent help in the construction of recovery rooms in museums and other cultural sites; and development of concepts for further measures to protect cultural property in coordination with the leading Foreign Office Ministries and the international representation at UNESCO (The Federal Government 2015).

2. Development of the Federal Civil Protection

In June 2002, the federal and state governments agreed on the "New Strategy for the protection of the population in Germany" (BBK 2016). This includes the providing equipment in accordance with the specific needs of the states, as well as availability and distribution of resources. Since 2008, in Germany, serious consideration has been given to the new design concept. This new concept is based on the provisions of the *Civil Protection and Disaster Relief Law,* by which the civil protection of the states is supplemented by the federation in tasks of fire protection, sheltering, ABC, and sanitary engineering. The presented new concept has demands regarding changes in civil defence in light of the new treats of national importance, as well as further strength of volunteering. It is based on risk assessment as it would correspond to the event of modern defence (war) and to the area, especially spatially limited by the danger and damage pattern of a large-scale emergency, which would be expected particularly in cases of asymmetric conflicts. The new concept design meets the requirements for an affective supplementary civil protection, and consists of core elements for special risk situations and a support component, which makes the core component of federation powerful, while at the same time it should strengthen and maintain the quantitative volunteering structure. The aim is particularly the development of supplementing the civil protection of the states from dangers of special materials from CBR hazards and mass casualties' events. The main elements include:

- standardized equipment for CBRN risk situations
- qualified CBRN detecting and measuring
- decontamination of people
- Analytical Task Force (ATF) for support of local employment teams with professional scientists and special measurement technology for complex CBRN materials.
- Medical Task Force (MTF) for support to injured in a mass attack.

From the aspect of the overall government responsibility for civil protection, the federal concept provides additional emergency vehicles in the areas of fire protection and sheltering as a support component (fire extinguishing vehicles, logistics water supply, trolley services, vans, and ambulances).

As part of the implementation process of the new equipment concept further fine-tuning with the states is required. The Federal Government has developed a concept for cost control at the site, as well as the training concept of the Federal Government for supplementary equipment of civil protection of the countries.

2.1. CBRN Protection

The protection of the population against CBRN threats is a key area within the Federal Office of Civil Protection and Disaster Assistance (BBK). This also includes

the protection of the forces of fire brigades and relief organizations.

There are three aspects of fundamental importance in the field of protection against CBRN after dispersion of dangerous substances: protection of persons in the danger zone by appropriate measures, protective clothing, rules of conduct; rapid detection and identification of specific risks; and countermeasures in contact with a hazardous material, such as decontamination (Richard et al. 2013, 458). As these three aspects are concerned, BBK provides professional and scientific advice, as well as technical support.

In interdisciplinary cooperation in Germany, the concepts for CBRN protection are developed and implemented in the system of civil protection. Examples of this are the following: the framework for the decontamination of injured persons, uniform standards for CBRN reconnaissance, and the concept for the formation of chemical analytical special forces, the Analytical Task Force (ATF).

Methods, CBRN protective clothes, procedures and systems for civil protection are being developed and implemented as practical solutions in the BBK's laboratories, in cooperation with the federal states, research institutions, and relevant industries.

Another element of the CBRN protection is the continuous research activity, especially in the field of detection and measurement techniques. In this area, the BBK also conducts contract researches with external research institutions and industries. The aim of the research is to provide practical solutions to be implemented in civil protection.

2.2. Analytical Task Force (ATF)

When dangerous substances are released in an accident, the vehicles of fire departments are primarily responsible for addressing the situation. For this purpose, the BBK services and personnel are used for CBRN reconnaissance or trolley decontamination of the states. In addition to saving human lives, and elimination of the acute hazard (for example, sealing a leak of transported hazardous materials) it is important to quickly obtain accurate information about the kinds of hazardous substances.

The Analytical Task Force CRN (CRN ATF) has been established for providing optimal support to the operational commander of the fire services. According to the "new strategy", the so-called Task Forces belong to the highest protection level (special protection with the help of specialists). These Task Forces are highly specialised mobile operational groups with special competences, which go beyond the possibilities of daily municipal threat defence. They should be quickly deployed on the particular mission, along with their equipment, which can be transported by air. The ATF CRN, intended particularly for dealing with CBRN materials, consists of task forces and special measurement technology. The personnel of the ATF are representatives from the states or cities. The BBK equips the ATF locations with particularly high-performance test equipment and emergency vehicles, and coordinates the special training. There are five professional fire brigades: Hamburg, Mannheim, Dortmund,

Cologne and Munich, as well as the Berlin Criminal Police Agency for use in ATF locations.

In the event of CBRN materials danger, any chief of operations who will determine the need of special ATF assistance may require their involvement. Within a combat radius of about 200 km around each location, the ATF should be able to provide assistance in three hours after the alert. The short time of response, compared to other CBRN forces available in Germany, is one of the special abilities of the ATF.

In November 2012, the pilot project ATF B was launched. The new concept design for supplementary federal civil protection envisages four sites for Analytical Task Force Biology (ATF-B). These have not been established yet, as the techniques for the detection of biological agents on site are not so far advanced. With the implementation of the pilot project ATF B, BBK attempts at closing this gap.

The project is carried out with the purpose to provide the foundations for the Task Force, aiming at developing both an analytical biological and technical concept. Technically the project is accompanied by a project support working group involving other ATF CRN locations and fire departments. The following are the priorities of the pilot project: testing the responsiveness of intervention teams; and testing B-detection devices and detection methods. Among the main tasks of the ATF B are consulting, sampling, and B detection in cases of main applications of bio hazardous materials, first, in event caused by intentionally dispersed biological agents (an investigation of suspect samples), second, an epidemic outbreak (a diagnosis of human samples). The ATF-B is working closely with other institutions (for example, state health departments, diagnostic laboratories, competence and treatment centres). As a specialized resource to highly specialized mobile forces an ATF B can offer special equipment, advanced measurement technology, and extensive expertise (BBK 2016).

3. Emergency Preparedness, Risk Analyzes and Critical Infrastructures

The considerations for emergency preparedness are based on the results of the risk analyses. The review of the results of the risk-analyses by normative, planning, and organizational measures for efficient preparation for possible dangerous events has shown that there is discrimination between private individual emergency preparedness, and governmental or official emergency preparedness.

Measures are taken in the context of emergency as precautionary measure packages in order to mitigate possible severe accidents or natural disasters, shortages, attacks, emergencies or military conflicts.

The considerations in the context of activities in the case of emergency are supported by emergency plans. The emergency planning refers to the totality of serious preparations for crises or disasters that have to be taken to ensure its effective management.

BBK's objective is proactive risk management aiming at preservation of the

viability of the infrastructure, as a significant supply system of the German society. According to the German definition, the Critical Infrastructures (KRITIS) are organizations or institutions of immense significance for the state community the failure or deterioration of which causes shortage of supplies, significant disruption of the public security or probability for other dramatic consequences. By this definition, in 2003, the agreed ministries on the federal level, made a division of the central supply systems in 8 sectors and 30 subsectors.

After eight years of experience, and with a view of closer cooperation between the federal and state governments, a review of the sectors by economic classification was considered as useful. The first steps can be found in the National Strategy for Critical Infrastructure Protection, which was decided on a proposal by the Federal Minister of the Interior in 2009. Thus, a conceptual framework was presented for protection for the supply of the Government, the industry and the main society utilities and service facilities. The framework contains a distinction between different areas of infrastructure as basic technical infrastructure, and socioeconomic services infrastructure. Based on detailed discussions in the context of a federal-state working group and an intensive consultation process at the federal level, the federal and state governments agreed on a common sector classification. In addition, the federal ministries agreed on a common industry sector structure. The most important change is the resolution of the previous sector of supply – where due to its importance, the former health, water, and food sectors were transferred into separate sectors. Furthermore, there is a new sector "Media and Culture" with the radio, the press, and cultural and symbolic buildings as Critical Infrastructure (Bundesministerium des Innern 2009).

With the total division of critical infrastructures in nine sectors (energy, water, food, information technology and telecommunications, transport and traffic, media and culture, health, government and public administration, and finance and industry insurance) and 29 industries; for the first time, between the federation and the states there is a coordinated framework for cooperation between the government and industry regarding critical infrastructure protection.

The KRITIS sections at the BBK are involved in the organs and working parties of NATO and the EU, responsible for the critical infrastructures protection.

4. Crisis Management

After the terrorist attacks in the USA on September 11, 2001, encouraged by the summer floods of the Danube River, the Elbe River and tributaries in 2002 the federal and state governments agreed on a new conceptual framework for civil protection. The new framework calls for respecting of the constitutional division of powers between the federation and states and it changed its strategic concept towards strengthening the federal-state cooperation in exceptional, nationally important hazardous and dangerous situations. The new instrument for more efficient interaction of the federal and the state

governments serves for particularly improved coordination of the information systems, designed so that the security can respond appropriately to new, extraordinary threats.

In the Department of Crisis Management of the Federal Office of Civil Protection and Disaster Assistance (BBK), the Federal Government has summarized the main instruments of the new federal-crisis management in large-scale incidents. Specifically, these are: Basic crisis management; Coordinating body for care for victims and care for the German families after major disasters abroad; Federal and republic Joint Information and Situation Centre; and Population warning (Bundesministerium des Innern 2015).

4.1. Basic Crisis Management

The ongoing evaluation of operations, exercises, and scientific evidence supports a continuous review and adaptation of the methods and structures of crisis management. In this regard, the main source is the exercise series LÜKEX (Transnational Crisis Management Exercise). It could be further improved in the state of crises, for example, for instance regarding the experience from exercises of inter-agency information sharing.

The conceptual development in the field of crisis management includes the initiation and support of research projects. Based on the findings from research and practical guidelines, the concepts and methodological approaches are developed for crisis management in civil protection. The successful crisis management is an activity provided jointly by a network of public and private actors. It is based on a technical process of coordination between federal, state, business, academic, and other partners. The BBK serves only as a moderator in this context. Regarding the conceptual basis, the BBK has the following operational instruments:
- the Joint Information and Situation Centre (GMLZ);
- the warning centre with a satellite-based warning system (SatWaS); and
- the coordinating body for administrative, medical, and psycho-social aftercare for victims of disasters or terrorist attacks abroad and their relatives (NOAH)

4.2. Psychosocial emergency care (pSNV)

For several years now, psychological issues of care for emergency victims and their relatives have had an enhanced attention in civil protection compared to other serious accidents or disasters. Meanwhile, crisis intervention teams, emergency counselling services, and similar supply structures have evolved and strengthened in all countries. The acceptance of these care services is steadily increasing. Yet, there is a clear need for improvement in the following areas: Quality Research and Assurance (effectiveness of care measures of pre- and after-care, evaluation of concepts and training); structural integration (deployment plans, management structure) as well as regional and supra-regional networking, including a nationwide available љуалитѕ databases; Information and Training at all levels of the civil defence and disaster protection, including concept

development in special cases (BBK 2011, 12-14).

The long-term goal serves the interests of those affected by accidents and disasters (emergency victims, relatives, and emergency respondents) to develop the psychosocial emergency care to a powerful integral part of the public (state and private) security. In this context, the federal government based its new civil protection strategy on various information and coordination services available to support crisis management in this substantial role of the states.

4.3. Joint Information and Situation Centre (GMLZ)

This centre ensures the participation of all active civil protection and rescue authorities, and organizations at the federal, state, and local level in efficient crisis management, particularly, in case of large-scale tragic events, or events of national importance. To obtain a comprehensive view of the situation, the various hazard detection sources are constantly monitored and interpreted. Hence, GMLZ's task is receiving, collecting, analyzing, processing, coordinating, dissemination, and exchange of messages and information. It aims at early detection of complex scenarios, and projection of the incident development.

The main focus is the service, and concept in the context of improving cooperation and information exchange between the federation and states, between different federal ministries and the national, international, and supranational organizations, as well as between Germany and other countries in dealing with significantly dangerous situations. Furthermore, the GMLZ is involved in coordinating and promoting cooperation in civil protection assistance within the EU and with the neighbouring countries of Germany, as well as the development and implementation of concepts for optimizing the cooperation of all stakeholders (BBK 2009).

The daily activities are conducted under the "general organizational structure". The GMLZ is, therefore, equipped according to the 24/7 mechanism with a non-stop working Situation Centre. The Situation Centre acts as the central national contact point in civil protection and in numerous international and national reporting and information procedures. In addition to the Community mechanism of the European Union, facilitating reinforced cooperation in civil protection assistance and cooperation with the Euro-Atlantic Disaster Response Coordination Relief Centre of NATO, it also includes the following additional reporting procedures:

- Faster exchange of information between EU Member States in event of radiological materials danger;
- Rapid alert systems for biological, chemical, and nuclear threats and attacks on European level;
- Messages for major international incidents with environmental consequences;
- Procedure information in cross-border effects of industrial accidents;

- Observation of the IT security situation for the Federal Office for Information Security;
- Exchange of information on health issues;
- Reporting procedures on protection of inland and marine waters.

As part of the disaster relief, the GMLZ performs transnational expert and critical resources research, and provides the results to the required relief carrier. At the same time, intensive work is conducted on the establishing of an Information Centre of the Federation for Large-Scale Incidents in the form of the German Emergency Prevention Information System. The GMLZ uses both the German emergency preparedness information system deNIS, as well as a growing network of experts from various institutions and authorities of civil protection (BBK 2009).

5. Civil-Military Cooperation

Civil - Military - Cooperation (CIMIC) refers to the interaction of civilian governmental and nongovernmental institutions and organizations within the military system. This includes the integration of people, trade, and industry, as long as their tasks relate to matters of critical infrastructures. In Germany, CIMIC relates both to the field of classical national defence as well as the additional support in disaster relief.

The document Civil-Military Cooperation of the Bundeswehr, regulates the basic cooperation domestically, and the cooperation abroad. It reflects the changed security environment and the future of the Bundeswehr, as formulated in the German White Paper of 2006 security policy (Federal Ministry of Defence 2006).

CIMIC, therefore, includes all plans, agreements, measures, forces, and means, which manage the relations between the military agencies/departments of the Territorial Defence Administration and civil and /or military forces/authorities and the civilian population. Aiming at obtaining support, facilitation or promotion, these arrangements include cooperation with non-governmental organizations or international agencies, organizations, and offices (CCOE 2013, 4). The primary objective is the involvement of all stakeholders for the purpose of more efficient organizational, material, and human resources management. Abroad, the focus is on the protection and support of civilian projects on maintaining or rebuilding infrastructure (Federal Ministry of Defence 2006, 98).

The new Centre, responsible for the tasks of civil-military cooperation of the armed forces, and selected territorial tasks, has become operational since 2014. The scope of the Centre not only includes tasks associated with the operations abroad, but also the training and development necessary to fulfil the duties of territorial tasks.

6. Conclusion

Civil defence was an umbrella term for public and private measures of protection of the population in the case of defence. Later, (noticeable in the 80s of the last century) the concept of civil defence extended to the dangers peacetime and in case of emergencies.

The ability of the population to protect itself shows very clearly the importance of a well-informed and trained population, capable and willing to help itself thus assisting the functioning of the entire protection and assistance system, and avoiding a major damage to the national economy of Germany. Furthermore, this commitment must be massively promoted through awareness-creation measures on the one hand, and by enabling specific measures on the other.

In accordance with the German Constitution, everyone has the right to life and physical integrity, so health protection is an asset which enjoys a high priority. Hence, considerable significance is attached to public health protection. Aiming at uninterrupted operation in case of an incident, the medical emergency response structures and procedures must be harmonized as much as possible. Dealing with this at a national and – if possible – international level is one of the Sanitary Civil Protection Centre's key tasks.

Furthermore, the measures of the Federal Office for Civil Protection and Disaster Assistance (BBK) to protect the population from the effects of hazards caused by radioactive, biological, or chemical agents are of great importance as well.

The federation has established the German Joint Information and Situation Centre (GMLZ) at the Federal Office for Civil Protection and Disaster Assistance (BBK) to further improve the federation-states crisis management. Its main task is to optimise information and resource management between the federation, the states, the local authorities, and organisations in the event of large-scale hazards and incidents.   The states use the radio or television for broadcasting official danger announcements. States are given additional responsibilities regarding this issue.

The Federal Office for Civil Protection and Disaster Assistance (BBK) works on the development of multi-stage planning, protection, and care concepts for civil protection on the basis of risk analysis.

The federal and the state governments are in a regular exchange of experience regarding further development of civil-military cooperation.

REFERENCES:

1. Arbeitsgruppe der Hilfsorganisationen im BBK. 2006. Konzept zur überörtlichen Hilfe bei MANV- *Erneuerung im Zivil/ Katastrophenschutz*. Bonn: BBK.

2. Bundesministerium des Innern. 2009. „National Strategy for Critical Infrastructure Protection". Last modified June 17. http://www.bmi.bund.de/cae/servlet/contentblob/598732/publicationFile/34423/kritis_englisch.pdf

3. Bundesministerium des Innern. 2015. „The Crisis Management System in Germany". Last modified Decembre 2015. http://www.bmi.bund.de/SharedDocs/Downloads/EN/Broschueren/2012/system_krisenmanagement_en.pdf?__blob=publicationFile

4. CCOE. 2013. „German CIMIC". Cimic Messenger Vol 5, Issue 4. Jully. Accessed February 28, 2016.

http://www.cimic-coe.org/wp-content/uploads/2014/06/CIMIC-Messenger-2013-04.pdf

5. European Commision. 2015. „Germany Prevention & Preparedness. Vademecum- Civil Protection". Accessed December 17. http://ec.europa.eu/echo/files/civil_protection/vademecum/de/2-de-3.html

6. Federal Government. 2015. „Report of the Federal Government on protection of cultural property in Germany". Accessed July 17. https://www.bundesregierung.de/Content/DE/_Anlagen/BKM/2013-07-11-bericht-kulturgutschutz-englisch.pdf?__blob=publicationFile&v=2.

7. Federal Office for Civil Protection and Disaster assistance -BBK. 2009. „German Joint Information and Situation Centre (GMLZ)". http://www.bbk.bund.de/SharedDocs/Downloads/BBK/EN/booklets_leaflets/Flyer_GMLZ-en.pdf?__blob=publicationFile; and

http://www.un-spider.org/sites/default/files/hermens_3rd_ws-bonn_22_10_09.pdf

8. Federal Office for Civil Protection and Disaster assistance -BBK. 2011. „*We inwest in the future*". Annual Report of the Federal Office of Civil Protection and Disaster Assistance. The Competence Centre of Civil Protection.

9. Federal Office for Civil Protection and Disaster assistance -BBK. 2015. „Information about Civil Defence". Accessed December22. http://www.bbk.bund.de/EN/Topics/Civil-Protection-Overview/SelfProtection/selfprotection_node.html

10. Federal Office for Civil Protection and Disaster assistance -BBK. 2016. „Information about Civil Defence". Accessed April 25. http://www.bbk.bund.de/EN/Topics/CBRNProtection/AnalyticalTaskForce/analyticaltaskforce_node.html

11. Federal Office for Civil Protection and Disaster assistance -BBK. 2016. „Information about Civil Defence". Accessed March 20. http://www.bbk.bund.de/EN/Topics/Civil-Protection-Overview/civil-protection-overview_node.html

12. Federal Ministry of Defence. 2006. *White Paper 2006 on German Security Policy and the Future of the Bundeswehr*. Berlin: Federal Ministry of Defence.

13. МКЦК. 2002. Женевски конвенции од 12 август 1949 и дополнителни протоколи од 1977. Скопје: Црвен крст на Република Македонија.

14. Richardt, Andre, Birgit Hulseweh, Bernd Niemeyer, and Frank Sabath. 2013. CBRN Protection: Managing the Threat of Chemical, Biological, Radioactive and Nuclear Weapons. Weinheim: Wiley-VCH.

15. Walter, Hans.1965. „The use of underground parking lots and garages for the protection of civilian populations". Proceedings of the symposium on Protective Structures for Civilian

Population, Washington, D.C. April 19-23.

16. ZSKG. 2009. „Gesetz uber den Zivilscuts und die Katastrophenhilfe des Bundes". Accessed April 24. http://www.bbk.bund.de/SharedDocs/Downloads/BBK/DE/FIS/Zivilschutz-Katastrophenhilfegesetz.pdf?__blob=publicationFile

„SOVREMENA MAKEDONSKA ODBRANA"
INTERNATIONAL SCIENTIFIC JOURNAL

INSTRUCTIONS FOR AUTHORS

International scientific journal „*SOVREMENA MAKEDONSKA ODBRANA***"** is a theoretical journal published by the Ministry of Defence of the Republic of Macedonia. The magazine regularly comes out twice a year and once a year there is a special issue on a particular topic. The magazine publishes original scientific papers, reviews of books in the field of defence, security and peace, on a national, regional and global level.
The magazine publishes only reviewed and specialized papers: original research papers, accompanying research papers and professional papers and book displays.
If Magazine accepts the paper the authors are not allowed to publish it in other journals.
Papers must not have more than three co-authors.
The manuscript should be submitted in electronic form. The pages and appendices should be numbered.
Papers should be written in English, where the paper should have a title, abstract and keywords.
The paper which are not to be printed are returned to the authors with an explanation.

TECHNICAL SPECIFICATIONS OF THE PAPER

The paper should include: title, author, institution, abstract, keywords, introduction, main part, conclusion and reference. The full paper should not exceed 5000 words in English.
Title of the paper - 14 points, Times New Roman, centered. Title of the paper should be short, but give a true reflection of the content and preferably contain as many keywords from the subject matter covered as possible.
One blank line.
Authors name and surname, lower case (Bold), 11 points, Times New Roman, centered.
Two empty rows.
Institution – cursive (Italic), 11 points, Times New Roman, centered.
Two empty rows.

Abstract - 11 points, Times New Roman, single-spaced. The content of the abstract should be an essential and independent entity.

One blank line.

Keywords - maximum 5 words, 11 points, Times New Roman, single spaced.

Introduction - 11 points, Times New Roman, single-spaced. One blank line.

Main Part -11 points, Times New Roman, single-spaced.

One blank line.

Conclusion - 11 points, Times New Roman, single-spaced. The conclusion should be a brief summary of the paper, and to include research results that occurred.

One blank line.

Reference - 11 points, Times New Roman, cited according to the Harvard style of citation. The cited reference should be given in a separate chapter in the order in which they appear as footnotes in the text. Cite only the bibliographical data used in the text. Cite all types of sources of information - books, specialized magazines, websites, computer software, printed or e-mail correspondence, and even verbal conversation.

Papers that use tables, pictures, drawings, photographs, illustrations, graphs and schemes, should be numbered with Arabic numerals, and the title of the picture should be written underneath. Each image or group of images should be planned in a well structured manner. The images should be sent as separate JPG file with a minimum resolution of 300 dpi. Colour images are printed as black and white.

Format: A4-format, delivered in an electronic form.

Margins

TOP	5 cm		TOP	1.89"
BOTOOM	5 cm или Page Setup		BOTOOM	1.89"
LEFT	4 cm (inch)		LEFT	1.58"
RIGHT	4 cm		RIGHT	1.58"
			GUTTER	0"

The Editorial Board is obliged to submitt the papers to the competent reviewers. The reviewers and authors remain anonymous. The reviewed papers, together with any

observations and opinions of the Editorial Board will be submitted to authors. They are obliged, within 15 days, to make the necessary corrections.

The time of publishing the paper, among other things, depends on following this guideline.

Deadlines for submission of papers - 30.03. and 31.10. in the current year

ADDRESS:
1. MILITARY ACADEMY
"GENERAL MIHAILO APOSTOLSKI"-SKOPJE
    Assoc. Prof. Aleksandar Glavinov, Colonel, Chief Editor
    Vice Dean for finance, investments and international cooperation
    e-mail: aglavinov@yahoo.com;
    aleksandar.glavinov@morm.gov.mk
    tel: 070 403 406

or

2. MINISTRY OF DEFENCE - DEPARTMENT OF PRODUCTION
    Ass.prof. Zhanet Ristoska
    e-mail: zanet.ristovska @ morm.gov.mk
    zanet.ristoska@yahoo.com

or

    sovremena@morm.gov.mk

*MAGAZINE **EDITORIAL BOARD***
Skopje, 21.01.2013,   *„Sovremena makedonska odbrana"*

32

СОВРЕМЕНА МАКЕДОНСКА ОДБРАНА

CONTEMPORARY MACEDONIAN DEFENCE
СОВРЕМЕНА МАКЕДОНСКА ОДБРАНА
32

NENAD TANESKI, TONI NAUMOVSKI, RINA KIRKOVA

ZHANET RISTOSKA

MUHAMET RACAJ

ALEKSANDAR GLAVINOV, JOVAN STANIKEVSKI, URIM VEJSELI

MARJAN BOGDANOSKI

STEFANIJA AGROTOVA, METODIJA DOJCINOVSKI

ELENIOR NIKOLOV, DAME DIMITROVSKI, DRAGE PETRESKI

SERGEJ CVETKOVSKI