STRATEGIC IMPACT

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EDITOR'S NOTE

Edition no. 55 of *Strategic Impact* scientific journal brings to its content some novelties. Our constant collaborators and readers were used to the second issue oh the year to be a thematic one, comprising academic presentations delivered by guest-speakers in the Seminar that CDSSS was organising traditionally at the end of May. However, as you probably found out from the periodic rubric *CDSSS Agenda*, this year's scientific activities were planned according to a different schedule, in order to welcome papers elaborated by PhD students and post-doctoral researchers within the projects under development in our University, namely *SmartSPODAS and Horizons 2020*. Thus, in the pages of the current edition, you will find articles elaborated by experienced officers, teaching staff and researchers, as well as articles signed by young PhD candidates.

In the opening of the *Political-Military Topicality* rubric, we present an analysis on *National Reserve Forces: from Defensive Sufficiency to Credible Deterrence*, signed by three authors, Virgil Bălăceanu, PhD, Dinu-Florian Ștefănescu and Alexandru Adomnicăi. The second article is a study of Mrs. Adela VÎLCU, PhD on the theme *The Army and the Society*, presenting *Military Organizational Culture Trends*.

The rubric *NATO and Eu Policies, Strategies, Actions* comprises three articles, the first being signed by our colleague Mrs. Alexandra Sarcinschi, PhD Senior Researcher, approaching the subject of *International Migration* in report with thee *Nation State in the European Union,* with a *case study on Romania.* Next, Mrs. Teodora Zecheru, PhD Researcher explores *NATO Challenges in the Context of Hybrid Threats Evolution*. And the last article, signed by Robert-Mihai POENARU dwells on *Development of NATO Capabilities and Interoperability of Allied Forces through Smart Defence and Connected Forces Initiative.*

Under the section *Security and Military Strategy* we included two perspectives on the very topical subject of hybrid war, one belonging to Florin-Marian Barbu and the other one to our colleague, Cristian Băhnăreanu PhD Senior Researcher.

In this edition we advance a new heading, *Intelligence Studies*, comprising three articles from an academic perspective: thus, Mr. Andrei-Marius Diamescu, PhD proposes a *Methodological Normativity in Intelligence and Social Research*, Mrs. Oana-Andreea Sandu analyses *Academic Intelligence* as *a Plurivalent Concept* and Information and Mr. Doru Pogoreanu advances a study on *Strategic Surprise*, offering a *Prospective Analysis of Weak Signals.*

In the rubric *Analyses, Syntheses, Evaluations*, Mr. Lucian Ștefan Cozma explores *Unconventional Technologies in the Modern Warfare*, referring to *Weapons, Concealment/ Camouflage Systems, Means of Transportation* while Mrs. Mihaela Radu, PhD dwells on *Gender Equality as a Condition for Achieving Human Security.*

Another novelty of this edition is the rubric *Strategic Dialogue*, under which we proposed ourselves as under the format of an interview, to debate on topics of high current interest and importance for the security and defence field with Romanian and foreign notorious experts. In the current issue, we had the pleasure of talking with Brig.Gen. (Ret.) Senior Researcher Gheorghe Văduva, one of the most

renowned Romanian experts in the field of Security Studies and geopolitics, strategy and geostrategy. The theme we approached was *The political-military crisis in Eastern Europe*, the material bearing the title *With The Epoch of Necessary and Dangerous Interdependencies*.

Also, in the section **Scientific Event**, we present the audience a few conclusions resulted from the *International Scientific Conference STRATEGIES XXI with the theme The Complex and Dynamic Nature of the Security Environment* – organized by the CDSSS in June 2015, and in the **CDSSS Agenda** rubric you will find out the activities we are preparing for the second half of the year.

In the end of the edition which was coordinated by our colleague Cristina Bogzeanu PhD Senior Researcher, is found the **Guide for Authors**, a useful material for those who whish to publish their research results in our journal.

For those who open *Strategic Impact* for the first time, we mention that the journal is an open access publication of the Centre for Defence and Security Strategic Studies within "Carol I" National Defence University (available at http://cssas.unap.ro/en/periodicals.htm) and is a *prestigious scientific journal in the field of military science, information and public order*, according to The National Council for the Recognition of University Degrees, Diplomas and Certificates (CNATDCU).

The journal is being published in Romanian language for fifteen years, and for eleven years in English language and has been approaching a complex thematic – political-military topicality, security strategy, military strategy, NATO and EU policies, strategies and actions, the issue of peace and the war of future, informational society, elements and aspects regarding the intelligence community. The readers may find, in the published pages, analyses, syntheses and evaluations at strategic level, points of view which study the impact of national, regional and global actions dynamics.

Regarding international visibility – primary objective of the journal –, the recognition of the publication's scientific quality is confirmed by its indexing in the international databases CEEOL (Central and Eastern European Online Library, Germany), EBSCO (USA), ProQuest (USA) and Index Copernicus International (Poland), but also by the presence in virtual catalogues of libraries in prestigious institutions abroad, such as NATO and universities with military profile in Bulgaria, Poland, Czech Republic, Hungary, Estonia and so on.

Strategic Impact journal is issued quarterly in March, June, September and December, in two separate editions: one in Romanian and one in English. The journal is distributed free of charge in the main institutions involved in security and defence, scientific and academic environment in the country and abroad – in Europe, Asia, America.

In the end, I would like to encourage the persons interested to publish in our pages to prospect and evaluate thoroughly the dynamics of the security environment.

Colonel Stan ANTON, PhD.
Editor in Chief
Director of Centre for Defence and Security Strategic Studies

NATIONAL RESERVE FORCES: FROM DEFENSIVE SUFFICIENCY TO CREDIBLE DETERRENCE

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Alexandru ADOMNICĂI***

The article aims to emphasize the importance of establishing the national reserve forces' as to ensure Romania's national security, under the circumstances of the recent evolutions in the conflict typology. Starting with a hybrid war's concise description, the necessity of the national forces' role is being reassessed within the security and establishment of the volunteer reserve equation, important conditions in creating the most favourable conditions of accomplishing the sufficiency of discouragement. The generous potential provided by the reserve forces is presented in terms of cost/efficiency (by analyzing the NATO-member states experience in reserve forces employment) as well as in terms of mission spectrum they are suitable for (involvement in military actions, combat forces regeneration, civil emergency situations management, conscripts' drill etc.). The article concludes with an assessment of the national reserve force' establishment perspective (10 – 20 years) and prerequisites (political assumption, budgeting, legal framework).

Keywords: *national reserve forces, volunteer reserve, mobilisation, hybrid war.*

1. General considerations

In a world of globalization and democratic societies, no state, not even the ones with a powerful economy can afford to maintain their peacetime regular military forces' strength and capabilities at the same level they would need to in wartime or during major crisis situations. Many arguments support this thesis, the most obvious ones coming from economic, social, political and diplomatic areas. Thus, considering that the governments' priorities are public health, education, infrastructure, social protection areas etc., supporting a level of their regular military forces' strength and capabilities higher than the one needed for peacetime training and missions becomes unjustifiable from the economic point of view. Moreover, maintaining the level of regular military forces' strength and capabilities in wartime or major crisis situations' values without being directly or immediately threatened cannot not pass unobserved by the international community (especially as international control mechanisms on this matter are in place) and therefore could not be justified, however skilful

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the concerned state's diplomacy would be.

Violent confrontations following the Cold War's conclusion increased in amplitude, in terms of frequency and adjacent geographic space, and, at the same time, acquired new different forms and expanded in multiple areas such as energetic, economic, financial, informatics, social, cultural area etc. We need to remember that, in most cases the military component was never ruled out and still remains very present and active including in Europe. Moreover, this component acquires new valences through cyber war specific actions and, most of all, through direct action concealment behind the curtain of extremist groups' activity inside the target state's territory combined with special operations forces infiltration, all together describing the so called *hybrid war*.

We need to underline two key elements regarding this type of war in our topic's context.

First, despite some opinions according to which the military component has only a background role, this is not quite accurate, as the military component remains the main instrument to achieve the hybrid war's goals. This fact should be corroborated with another extremely important one, namely that the hybrid war is mainly a geographic spaces' war, of targeted territories.

A second element concerns the extensive capitalization of aggravated affairs regarding ethnic problems, the ethnic majority in the conflict area being the same as the military involved state that intervenes in winning their so-called rights, leading to secession or absorption.

As far as *hybrid war* goes, one component was less analyzed until now, that being the paramilitary component that requires massive support, at least in the preliminary stages of the guerilla operations, from the previous military training of the recruits. The other side of the coin reveals the military training of the reservists, along with equipment, counselling and special forces, all supported by the sponsor state.

In the present security context and after a period when insuring national security was all about alliances and agreements with foreign partners, extremely useful nevertheless, we think it is time to reevaluate and reconsider the role played by our own forces in the national security equation.

Shifting to a peace time volunteer military service determined a major decrease in numbers and training degree of the reservists, drafting them being possible only during exceptional situations, such as siege, mobilization or war. This situation suffers a pronounced negative dynamic as longer periods of time go by from the moment when the last contingent of armymen finished training, in 2006, and becomes critical in the next 10 years, when it is expected that a large number of reservists will move to the second and third record stages, or even get to the age limit for military registration. There is a major discrepancy regarding the possible reserve in the next years for the soldiers' and officers' corps. This is generated by the fact that present day regulations[1] allow professional soldiers and officers to remain active up to 55 years of age, the same age being, according to other regulations[2], the top limit for the third record stage, meaning that this category will be unregistered once the active military service is finished.

On the other hand, during military actions the forces involved go trough a wearing process and require a continuous regeneration process, that could mean either replacing losses when they are at a decent level (under 30%), or in disengaging structures and restoring them outside the enemy contact line, when the fighting capability is lost.

We will briefly talk about some arguments that clearly underline the impending need of restoring the army reserve as a solution to bringing the military structures to a complete operational capacity, according to war organizing, in situations regulated by law. These elements are oriented towards demonstrating the opportunity of establishing national reserve forces that must be able to undergo missions by themselves, cooperating or integrated with other army structures.

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[1] Legea nr. 384/2006 privind statutul soldaților și gradaților profesioniști cu modificările și completările ulterioare, art. 35, alin. (2).

[2] Legea nr. 446/2006 privind pregătirea populației pentru apărare cu modificările și completările ulterioare, art. 41, alin. (1).

Approaching the said theme, we need to clarify some aspects regarding the *voluntary reserve and the national reserve forces.*

The *voluntary reserve* consists of personnel consenting, on a voluntary basis, to be a part of the defence system institutions, public order and national security, on the basis of an individual contractual agreement.

The *national reserve forces* can be considered as a category of armed forces organized on a territorial principle, consisting of units, subunits and fight and support formations, having an active peace time personnel at somewhere between 5 and 15 percent, being able to add to those numbers in war situations with the use of reservists and/or voluntary reservists.

Just like the name and definition say, the reserve forces have predominantly reservists and voluntary reservists, their numbers being determined by the specifics of each particular structure, as well as the degree and time needed to have them operational, according to their specific missions.

In the light of human resources deficit and the ever growing amplitude of military actions, especially those regarding the hybrid war and taking into consideration the present potential of the armed forces' operational reserve, establishing the national reserve forces on the basis of volunteering represent a sine qua non condition in order to create the most favourable conditions for the sufficiency of discouragement and imposes a series of urgent measures as far as legislature, organization, training and operations go.

2. The Reserve Forces of some NATO member states

The experience of NATO countries regarding reserve forces is a considerable one, especially when it comes to its volunteering component.

As a first example we can look at the *Unites States*, which have more than 1 mil. fighters and specialist voluntary reservists, throughout all the seven components of the Reserve Forces. Of course, we must take into consideration the quantitative proportions and no doubt, the qualitative ones, thinking about USA's defence budget.

This is where we find the most conclusive example of efficiency that the reserve forces can mean opposed to the active forces, in cost-efficiency terms, in regard to allocated funds and the percentage of personnel out of the operational forces.

The Land Reserve Forces have a budget of 11% of that of the Active Land Forces, providing 32% of personnel and an extremely important 40% of the operational forces. The Air Force, with 6% of the budget, provides 19% of the personnel and 30-40% of the operational forces. The National Guard of Land Forces, using a quarter of the active bases, has costs reported to be at one tenth of the said bases. This National Guard is composed of 8 divisions and 138 brigades, out of whom 28 are Combat-Team type, 58 are multi-purpose and 48 functioning[3]. As such, a huge number of forces developed on the principle of voluntary reserve is maintained at much lower costs than the ones needed for the active forces. This is a clear example of the way that reserve forces can provide for the need of personnel according to types of missions, with reasonable budgets or, like in Romania's case, undersized budget, even in the perspective of the 2% of the GDP quota.

Germany, Poland and Hungary provide relevant cases as to taking urgent measures regarding the reserve, measures taken right after giving up on the mandatory military service system.

Germany leads by far, as starting with 2011, it creates its National Reserve Forces, today having 35.000 reservists, in a so-called completion reserve, composed of independent reserve units, including the ones for disaster relief, established on regional criteria and meant to insure the peace time deficit of the units and organizing states in war time.

The principle that these forces are built on is a very simple and efficient one. Through a political decision, they established a number of 2500 openings for a 1 year service or 5000 for half a year or 10.000 for three months, and so

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[3] Presentation of US defence attache at the roundtable on the theme National military reserve of Romania, landmarks and models ("Rezerva militară națională a României, repere și modele"), Bucharest, November 2014.

on[4]. One of the future measures is involving the Reservist Association in training the voluntary reservists, another one will allow selecting active professionals out of the voluntary reservists in order to cover the peace time deficit.

Poland, trough some legislative measures in 2009, establishes in 2010 the national reserve forces, being able in 2015 to have more than 10.000 reservists, as personnel reserve[5]. Also, they plan to intensify the selection and training program and get to 20.000 reservists, analyzing the possibility of establishing regional reserve units, deployed on a territorial defence principle.

Hungary has more than 5000 reservists, a process that began right after 2011, with a very interesting first stage when the voluntary reserve was tasked, in peace time, to guard and defend army barracks and installations[6]. These numbers illustrate the concern of NATO countries as far as developing the voluntary reserve goes.

Unfortunately, when it comes to *Romania*, although we can talk about similarities regarding the intentions of adopting the law frame needed for the voluntary reserve to come into existence during the same time period the above mentioned states did, this process did not come to its fruition to this day.

3. The necessity and opportunity of creating national reserve forces to insure Romania's national security

The history of Romanian Army involvement in armed conflicts throughout the last 150 years, starting with the Independence War and ending with the Second World War shows us that before these conflicts the permanent army, or in other words, the peace time forces were mobilized and were completed with reserve elements. Each mobilization had its own particularities, however, its efficiency dictated the reaction speed of the Romanian armed forces.

Out of the above mentioned situations, we would like to briefly talk about the Romanian Army during the Second Balkan War, conscription enacted on the 20th of June 1913, with the first day on the 22nd of June at 14:30 and ended after only 6 days, on the 28th of June, when the transports and deployment began. In this time interval 5 army crops were conscripted with 15 divisions (5 reserve divisions), 3 reserve brigades, 2 cavalry divisions, adding up to approximately 480.000 military. The short time needed to amass this large number of troops, along with the situation on the Greek and Macedonian fronts surprised the Bulgarians, forcing them to sign an armistice and give up on many territories they had won during the First Balkan War.

We used this brief example to reveal the need of a consistent reserve force, highly trained during peace time, able to be put to use in crisis situations as well as war time.

According to present day legislation[7], in order to insure the necessary human resources in war time, a mobilization reserve can be established, composed of the operational reserve and that includes voluntary reservists and the general reserve that includes all citizens with military duties that are not part of the operational reserve.

These human resources that can be used in the defence system, public order and national security, according to the law, are composed of active military personnel, students of the military education institutions, except for those in freshman year and for those of military colleges, reservists and voluntary reservists, as well as citizens with military duties[8].

The law, however, does not talk about two elements − the voluntary reserve and voluntary military service during peace time. Both can

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[4] Presentation of Germany's defence attache at the roundtable on the theme National military reserve of Romania, landmarks and models ("Rezerva militară națională a României, repere și modele"), Bucharest, November 2014.

[5] Presentation of Poland's defence attache at the roundtable on the theme National military reserve of Romania, landmarks and models ("Rezerva militară națională a României, repere și modele"), Bucharest, November 2014.

[6] Roundtable on the theme National military reserve of Romania, landmarks and models ("Rezerva militară națională a României, repere și modele"), Bucharest, November 2014.

[7] Legea nr. 355/2009 privind regimul stării de mobilizare partiale sau totale a forțelor armate și al stării de război, art. 23 alin. (3).

[8] Legea nr. 355/2009 privind regimul stării de mobilizare partiale sau totale a forțelor armate și al stării de război, art. 23, alin. (1).

be found in one way or another in other NATO countries' legislation, e.g. Germany, Poland, Hungary[9] etc.

In this context, we integrate the considerations regarding the need of a national reserve forces, able to efficiently complete, through specific mission, the actions of the armed forces, in their entirety.

When trying to answer important questions dealing with the functioning and development of these forces, a few principles need to be taken into consideration:

a) the territorial principle;
b) the mission-capability conformity principle;
c) the action integration principle;
d) the coordination and cooperation principle;
e) the single command principle;
f) the access to resources principle.

The territorial principle refers to the fact that the reserve forces have conscripted troops, selected in townships close to deployment areas; the mission of providing these human resources being undertaken by the regional military centres in that specific jurisdiction. They are composed of structures and receive specific missions according to the geographical, land and social conditions in that area (mountain, coastal area, border area, special importance objectives, etc.)

In order to insure the sufficiency of discouragement, the armed forces will be able to accomplish missions specific to territorial defence, along with keeping an expeditionary capacity, taking into consideration the geographical configuration of the national territory, the areas most exposed to possible dangers, the strategic interest objectives and the main probable and favourable directions for offensive aerial, land and naval actions.

Providing the infrastructure and necessary logistics for territorial defence, the extensive use of all local resources of any kind, a common sustained retaliation effort, all of these represent necessary elements for a successful defence.

The *mission-capability conformity principle*

reflects the need of using reserve forces only in accomplishing those missions in accordance to the degree of formation, endowment and training of the structures they are made of. This requires a precise knowledge of the level and operation terms of the elements composing the reserve forces by the military planners on all levels, in order to properly evaluate the said entities 'potential and to rightfully determine the missions they can be tasked with. Obviously, the possible estimate errors or ignoring a status quo can lead to the irrational use of these structures and even to their involvement in situations with disastrous consequences.

The principle of action integration requires the reserve forces actions to be included along those planed at each level, beginning with the strategic one and continuing with the operational and tactical one. This means that the planners need to take into account all the elements and particularities of the reserve forces actions and they must find the optimal solutions to integrate them in the strategic and operational formation.

The principle of cooperation and coordination reflects the necessity of permanent correlation of the reserve forces actions and the other structures in the area. As such, the best solutions are needed to maintain a permanent connection between all entities acting in nearby areas, for the mutual mission acknowledgement and preventing fratricide.

The principle of single command means that all the forces involved in an operation, including the reserve ones, must obey the principle of single command. A single command authority represents a sine qua non condition for the success of military actions, regardless of their type.

The principle of resources accessibility tells us that the reserve forces must be part of the joined logistic system, they must be assigned to logistic structures organized on a territorial basis and need to be provided with, even in peace time, with material and financial support, needed by the whole process of establishing, organizing and training.

Organizing the reserve forces could follow a very simplified scheme:

- one National Reserve Forces Command HQ;

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[9] Roundtable on the theme National military reserve of Romania, landmarks and models ("Rezerva militară națională a României, repere şi modele"), Bucharest, November 2014.

- 8-10 reserve brigades with command in the cities where we have regional military centers;

- 3-5 battalions of different branches (one battalion per county).

Their structure is different, according to the geographical specifics of the respective counties.

The reserve forces should not be regarded as a component of the armed forces, but as a component of the defense system, public order and national defense in its entirety.

4. Using the national reserve forces

In our approach, the national reserve forces can be used for the following missions.

➢ *Taking part in military actions, both on home ground and abroad, in accordance to the treaties that Romania is part of*

Taking part in military actions abroad can only be possible for structures that have voluntary reservists in the absence of an extraordinary state that could mean shifting to a mandatory military service. In fact, establishing these structures is in close connection to the legal regulations concerning accessing human resources (in peace time or emergency situations only active servicemen and voluntary reserves, and in siege situations and war, conscripted reservists and serving servicemen).

➢ *Regenerating the other categories of the armed forces*

The reserve structures can represent an important resource for replenishing the fight capabilities of other forces in two instances – first, by providing trained troops that replace the losses taken during military actions, and secondly, by replacing structures that have temporarily or permanently lost their fighting capabilities in action.

➢ *Taking action in civil emergency situations*

Capitalizing the structures' capabilities of acting in a coordinate and opportunistic manner comes of as very important for preventing and providing disaster relief. We must take into consideration in this situation the operating capabilities of these entities according to the human resources available. Before instituting an exceptional situation, only active personnel units and voluntary reserve units are available, all the other structures can be used only after shifting to a mandatory military service.

➢ *Training troops according to the law*

During siege, mobilization and war, the military service becomes mandatory. Citizens that fulfill the conditions stated by law will be drafted. Of course, not all citizens fulfilling these conditions need to be drafted, only those needed and those available for training, as using them in military structures depends on their training. The reserve forces could represent an efficient way of training servicemen that could be added to the numbers of operative units.

➢ *Insuring military actions of structures belonging to other armed forces categories*

Obviously, some of the missions regarding insuring actions and forces protection can be taken on by reserve forces, more so when operating units are acting in areas where such structures have action capabilities. We are looking at troop displacement protection, recon and deployment areas protection, provisioning, evacuation, medical support, family support, etc. We also need to include the actions undertaken in order to provide support to the host nation for other NATO countries' troops.

➢ *Insurgency actions/ guerilla warfare/ hybrid war in occupied territory*

When an armed aggression against national territory would lead to the loss of territory before the deployment of reserve forces, they could organize themselves and act as guerilla forces with specific actions.

From analyzing the missions these structures could be tasked with, we can see the opportunity of using these structures, with low costs, with the possibility of relieving operative structures of certain tasks, other than the ones directly related to their main mission.

5. The voluntary reserve as a main human resource for the reserve forces

Establishing and using the reserve forces requires two main components:

- one that manifests itself in peace time and is dependent on population training, economy and territory;

- another one that manifest itself during exceptional times, that require the use of forces along with their regeneration.

Both situations need a special approach when it comes to human resources, as the elements of preparing the economy and territory for defence purposes do not have specific particularities as opposed to other armed forces categories. Therefore, we think that we must look at the human resource that can be used according to the law, previously described[10], with a share of reservists and voluntary reservists.

The conditions imposed by shifting to a voluntary military service in peace time, according to Law no.395/2—5, drastically limit the training possibilities, as drafting them is only allowed in siege, mobilization or war situations. The only solution for having a trained reserve in peace time is establishing the voluntary reserve.

The voluntary reservists represent the personnel selected on a voluntary basis, which consent through a contractual agreement to act as reservists in the defence, public order and national defense system. They can be reservists (having previous military training) or citizens that underwent the mandatory military service, or citizens that did not fulfil an active military duty but can and do choose to become a voluntary reservist.

The defining element for the voluntary reservists is that they undergo monthly training, two days during their weekly break, as well as five consecutive days each year, usually during exercises or other complex training forms. Therefore they present a higher training degree and can be tasked with missions during peace time or emergency situations.

While the reservists are in training or in action, they have rights and obligations similar to those of active military personnel and receive a monthly compensation of 10 to 30% of the rank payment according to their position.

Employers are legally obliged to allow their reservist employees to take part in training and missions, and to temporarily suspend all work relations with them for the said period of time, receiving a financial compensation for the losses

generated by their leave[11].

The potential that this category has is a very generous one when looking at costs versus efficiency. Establishing the voluntary reserve could lead to solving some issues that the military is dealing with at the present time. The recruitment as voluntary reservists of educated civilians in various special fields that are not included in the military education system and putting them to good use without placing them with the permanent troops or maintaining in peace time the training infrastructure, maintaining a sufficient number of well trained instructors (that could train servicemen when shifting to a mandatory military service system) are just a few examples.

Conclusions

Establishing the national reserve force must be looked upon on a time period ranging from 10 to 20 years, starting with the next governing session of 2016-2020. This means that the objective must be politically backed and financially supported, as well as provided with the necessary legal frame. Taking into consideration the major decrease in numbers and quality of the reserve corps, we think that it is necessary and possible to have the reserve forces operational with 50% voluntary reservists by 2025, going up to 100% in the next 20 years.

These perspectives can come to fruition if, besides the endowment, operating and maintaining objectives, along with replenishing the stocks, when distributing the 2% out of the country's GDP that represent the military budget, we will take into account the establishment of these forces, that we find as absolutely necessary in order to improve the army's fight capabilities.

It is hard to quantify one country's independence in financial terms, its territorial sovereignty. In his work "Pagini din gândirea economică militară românească" (Pages of the Romanian military economic thinking), Mihai Cioc stated that "the notion of cheap and expensive is a very relative one, it all depends of the time it refers to and the price you put on your

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[10] Legea nr. 355/2009 privind regimul stării de mobilizare partiale sau totale a forțelor armate și al stării de război, art. 23 alin. (1).

[11] Proiectul Legii privind statutul rezerviștilor voluntari, înregistrat în Senatul României cu nr. L434/2011

country's future, and we must not forget that in this matter, what today seems cheap, tomorrow might not be expensive or cheap, but fatal"[12].

Therefore, we think that the efforts taken to insure a satisfying quality of the reserve, to the benefit of not just the military but of the whole defence system, public order and national security, need to be concentrated on two main directions:

- creating the legal frame and enacting the voluntary reservists law, with the specific related regulations and

- establishing the voluntary military service in peace time and emergency situations by modifying the existing legislation.

The available resources are never sufficient, but using them in a rational and able manner can be the key of success. Sun Tzu states that "the resources of those that are experts in using forces are as infinite as the sky and the earth, as inexhaustible as the water of the great rivers".[13]

We sought to finish on a more optimistic note coming from the great thinker, hoping that we have these experts that could put Romania's resources to good use in insuring the needed security.

Modernizing the Romanian Army will require the four vectors of accomplishing the sufficiency of discouragement – new equipments or modernized ones, including those related to digitalization and robotics, operating and maintaining, regenerating all the stock categories and establishing the voluntary reserve.

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[12] Mihai Cioc, *Pagini din gândirea economică militară românească,* Editura Militară, 1983, pp. 24-25.

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THE ARMY AND THE SOCIETY. MILITARY ORGANIZATIONAL CULTURE TRENDS

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There is not a trend, but certitude that the human resources management constitutes itself into a veritable link between the military system with its own specific and the national social system. The transformation processes which stand at the bottom of each modern armed forces in their transition towards postmodernism under the auspices of an extremely volatile security environment are fundamentally influenced by the trends and the processes which have a significant impact on social life. In relation with these processes the armed forces human resources management remains an open system, permanently adaptive, able to integrate itself within society, accepting models and providing in turn formulas which can be implemented at the level of social life.

Keywords*: social system, army, human resources management, legislation, specific documents, military organizational culture, trends, opening, integration.*

Preliminary considerations

The balance between society and state as an organizational type basically constitutes the cornerstone of the human development being, in fact, the essence of mankind history. If considered, as normal, that the actual modern state does not fit anymore in the framework type "I am the state", but, on the contrary, some other multiple and complex institutional networks are taken into considerations, in which those organizations responsible to exercise the state authority control themselves on the basis of some established fundamental principles, most of the time through constitutions, under no circumstances, out of this interactive context cannot be leaved aside the balance between society and state. In fact, if we admit that nowadays democratic and developed powerful states have grown based on strong military arguments then it is not surprisingly at all that fundamental social sciences such as the military sociology or politology[1] pay a special attention to these relations.

In the same order of intellectual bond we have developed the present attempt which meant to demonstrate, in a generic manner, the character and also the necessity to open the military system towards the democratic values which are about to consolidate in our country, even if not as quick as most of the population would like, but – we hope – for sure. Based on these formal coordinates and the end state of this attempt, it is quite easy to understand the reasons for which the present approach focuses onto a specific aspect of the military system opening and its integration within

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[1] Marian Zulean, *Armata şi societăţile postcomuniste în tranziţie*, Editura Universităţii Naţionale de Apărare „Carol I", Bucureşti, 2005, p. 7.

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the national social system, mainly the admin subsystem of the military system centered on the army human resources management as a whole, comprising policies, regulations and procedures.

The motivation of choosing such a topic is based on the fact that along with the social subsystem and the military technical subsystem, the admin human resources management support subsystem contributes in a significant way to the shaping of the complex of the civil-military relationship which assures the democratic dimension of the global proportion between the army and the society.

1. Historical coordinates

A summarily radiography of the evolution of the Romanian military phenomenon during the post-December epoch requires a journey back in time beyond those events which established the slogan "The Army is with us!". There are enough reasons to justify the statement that this specific outcry of the population had the purpose to reestablish the connection tie between the army and the population − a tie which was broken by the political context and mostly by the ideological one responsible for the propaganda concept "The army of the people" while, in fact, in accordance with the politics of those times, the army could be ordered to act against the will of the people. Some clashes of opinions related to those events are still vivid, showing "in a finger manner" that the military, especially those having higher ranks, did a lot of mistakes being servile to the political regime but this kind of clashes remain as open discussions for the historical domain because within that context it was almost impossible, especially for any military, to manifest any kind of opposition.

Beyond the emotional impact of the link between the soldiers' patriotic duties and their relatives' freedom ideals, "The Army is with us!" succeeded to rediscover within the military spirit their reason to coexist under the weapons and the flag, the fundamental armed forces mission being "to defend the sovereignty, the independence and the unity of the state, its territorial integrity and its

constitutional democracy"[2]. Thus, an awakening within the professional military spirit has been identified, whose essential role is to defend the country and not to upturn some political interests dressed into an overall and using a construction shovel, a miner's hacker or agricultural tools.

Under these auspices, the first and maybe the most important human resources management decisions have been adopted with impacts on the military education reshaping and modernizing process. To train officers through an academic education, maintaining at the same time an open system of admission for all those candidates coming not only from the military high schools, meant an important step towards the armed forces educational and professional process performed during the same time with the reformation of the Romanian democratic state. As it is written down in the history of the Land Forces[3], within the reform process initiated at the level of the entire Romanian society, the reformation of the military organisation constituted itself into a vanguard domain. The military education was linked to the new coordinate characteristic for the modern armies. Thus, an option to establish a brand new military education system was generated, a totally modified system, with a new definition of the training levels and the missions and objectives for those structures designated to specialize and develop the military personnel.

Within this general context, a significant jump was accomplished in 1991 when, following a Governmental decision[4], the officers' old military school was transformed into an academic military institute under the name of "Nicolae Bălcescu – Infantry, Rangers and Chemistry Military Institute" meaning a new step, even if a transitory one, for the planning, leading, training and educating the armed forces. In 1992, the name of the institute was changed again in "Nicolae Bălcescu – Infantry and Chemistry Military

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[2] Art. 117 alin.(1) from *Romanian Constitution*, 1991.

[3] Land Forces Academy website, www.armyacademy.ro, accessed on May 15, 2015.

[4] *Romanian Government Decision no. 190 from 2 March 1991 concerning the transformation of the officers' military schools into academic military institutions*, published in the Official Monitor no. 80 from 16 April 1991.

Institute" after the *border guards* entered under the control of the Ministry of Internal Affairs.

Those had been the main historical coordinates which generated the possibility of switching to an academic education a decisive moment in order to reassure a new socio-professional status for the armed forces command officers. Basically, the process had not been finalized at that time, having a continuation till the moment of 1995, when all the military educational institutes, providing training for different services, reunited within the framework of different armed forces academies. Those military institutions had been integrated within the national educational academic system[5], being responsible for providing the basic academic training for the future officers.

The moment of 1995 is not significant only through this military educational, reform but also through the adoption of the *new military status*, in accordance with the *Law no. 80* released the same year, an organic law in accordance with the *Constitution*. Even if it was in use quite a while after the events on December 1989, which confirms the stability of the military system, but in the same time its conservatism too, each term having its own connotations, *The status of* 1995 takes over most of the disposals written down into the previous statuses approved through ministerial decisions[6] by the Ministerial Counsel, on different types of military personnel, and abolishes them.

Thus, we consider that even if it does not constitute a turning point in respect with the next evolution of the military organization and neither a radical change for the work relationship within the military system, such a broad "democratization" (in a context in which part of the military personnel would have liked to have organizations of the syndicate type, alike The Action Committee for the Democratization of the Army CADA[7]), *Law no.80/1995* constituted, on

one side, an incipient step towards "approaching" the military profession close to some other stately jobs. On the other side, the same law stipulated express limits and interdictions concerning some citizens' rights and liberties, an element which could not be found in the previous statuses and through which this brand new character succeeded to consolidate the special status of the professional military in comparison with some other socio-professional categories.

To parenthesize, we consider nowadays that the merit of the CADA might be appreciated for its opposition at that moment using different leavening means, for the army role within the events of June 1990[8], a fact which generated a turning point into the management of the basic mission of the army and, doubtless, has constituted a practical precedent for not using the Armed Forces in internal domestic issues, against anti-government meetings, having reverberations beyond the common legislation and emerging into the constitutional domain. Nowadays, it is considered absolutely normal not to use military force in order to keep the order during a political meeting and this situation is, somehow, the merit of former CADA members.

2. The opening vectors of the human resources management system

The orientation towards a human resources management system totally different in comparison with the system used outside the armed forces environment, or much more opened towards those values adopted within the common labor regime, maintains the clashes concerning this topic, the resulting vector being active through fluctuating attitudes at the level of the military organization, but the evolution of the *Military personnel status* met the same path

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[5] Art. 176 alin.(1) from *National Education Law no.1/2001* and art. 97 alin.(1) from *Education Law no.84/1995*.

[6] *Ministerial Council Decision no. 1.177/1965, 924/1964* and *no.1.178/1965*.

[7] The Action Committee for the Democratization of the Army had appeared in February 1990, at Timişoara (www. dreptatea.eu) and was dismantled through a series of

difficult decisions, some of them contested into court, by the Ministry of National Defense (e.g. the case of Nicolae Durac a former officer, who joined the reserve on order in 1990 and after that a favorable legal decision put him into the possession of an amount of 10 miliarde lei, in 2006 - http://adevarul.ro/news/societate/nicolae-durac).

[8] For setails see www.romanimea.com, accessed on May 15, 2015.

as the evolution of the military system itself. In this respect, the period before joining the Euro-Atlantic structures had determined some fundamental changes, being preceded by the numerous and difficult years of the armed forces restructuring process.

The transition to a professional army by giving up conscription represents a specific characteristic for old and young democracies (such as nowadays Romania), and for the Romanian Armed Forces, this element of transformation has been accomplished with higher costs, more than half of the total number of personnel being downsized on assumed basis by the Romanian state, which succeeded to compensate, from the financial point of view, all those who quit the military career on desire or forced by different circumstances to begin a new professional life within a totally uncertain national job market place.

Thus, the major effects of the well known *Government Ordnance no. 7/1998*[9] have been felt for about ten years long after Romania became a NATO member (2004) and even an EU member (2007).

This process is an important one not only from the point of view of creating a sustainable military force but mainly from the perspective of the human resources management evolution. There are enough arguments confirming that the sustainability does not necessarily mean only the reduction of the labor expenses, in an attempt to keep them within the limits of a modest budget, because the professionalizing, among other things, refers to get enough money for the endowment process and, nevertheless, to train the human resources in order to be able to use them. In our opinion, at paradigmatic level, the changing is a profound one, meaning that this orientation has shifted its gravity centre from a qualitative point of view basically from "more and good" to "enough and outstanding".

In fact, to build a new professional army was a must in order to join the NATO Alliance, a process which was accomplished by fulfilling, among other things, the condition related to civilian control over the military. This concept adopts diverse acceptances, civilian or democratic control, political control but, in fact, is just a matter of civil-military relationship which embraces ample aspects of the military system against its own national social system, definable in a reductive way to some aspects presented in a study written down by Marian Zulean[10]: the admission and the abidance of the law by the army; keeping the apolitical aspect of the army and respecting the civil authority by it; showing respect by the civil society towards the army special role within the social system framework; a proper budget to train the army in order to accomplish its tasks and missions; establishing interacting mechanisms with the armed forces in order to solve the crises which, by no means, request a military intervention.

The downsizing process which was initiated after the 1998 moment was followed as well by the real transformations at the level of 2000 through substantial changes brought to the *Military personnel status*, in 2001, which was shaped under the aspect of some profound institutional adaptations in the spirit of a pronounced organizational efficiency as a main element of the goal of the policies, regulations and procedures offering much more consistency to the administrative pillar of the military system. It is interesting that, on one hand, the legislator (through the approval of the *Government Ordnance no.7/1998*) agreed to continue the reform process in terms of downsizing, but this time interfering with the qualitative reform of the military organization. On the other hand, it is about the empowering of the Government[11] in order to establish the conditions concerning the military

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[9] *Government Ordnance no. 7 from 26 January 1998 concerning some measures of social protection for the military and civil personnel in use during the military combat units and different structures within the National Defense Ministry restructuring process*, published within the Official Monitor no. 34 from 29 January 1998.

[10] Marian Zulean, *op.cit.*, pp. 5-6.

[11] First *Military Career Guide* adopted through the *Government Decision no. 582/2001*, based on *the Constitution* and art.5 alin.(2) from *Law no. 80/1995 concerning the Military Status,* modified and augmented through the Emergency Government Ordnance no. *90/2001.*

career evolution through the *Military career guide*, to limit those possibilities of promoting someone from the military in a higher position other than his/her rank and the instauration of a legal framework for the promotion boards, all these having as a unique goal to live aside the possibilities and opportunities for the military career promotion and ranking, to install an open professional competency, based on deserving facts, chiefly to promote transparency and equality as human resources management fundamental landmarks and to open it towards the universal democratic values.

Renaming the military ranks, moving the sergeant rank in the NCO category and dropping the age limit for the military represented actions which completed the series of efforts done by the army in order to integrate in NATO, but also with the price, on the one hand, of having many differences in comparison with the other institutions within the defense and public order system and, on the other hand, with the internal perception of those measures as being totally unpopular , on the background of Romania being on a descendent economic trend, with serious threats like inflation and unemployment.

To these, we can add all the legal aspects which made possible an opening process for the human resources management system, the status modifications accomplished through *Law no. 478/2002* and through *Law no. 286/2004*. Among other things, the first one gives the military personnel the right to gather within different forms of charitable associations stipulated within the initial text („...professional, technical, scientific, cultural and athletic character..."). In fact, this right is a constitutional one and following an input coming from a single member of the Parliament (not of the Government) had as a result the attenuation of the confinement of this right by the active military. The second one has the same orientation, coming in place to eliminate the condition of becoming an active military person only if possessing the Romanian citizenship based on the same legal basis which had been created for the same purpose through

the modification of the *Constitution*, in 2003[12].

To these vectors of opening, from the motivational perspective of the human resources management, we can associate some part of *The Government Emergency Ordnance no. 4/2004*, through which all military personnel and their families are given supplementary funds taking into account the socio-economical conditions of those times in which the estate market was less accessible for the military due to their salary: raising the percentage ceiling of a monthly payment for the rent, from 25 to 50% out of the monthly payment; establishing by law (and not only through a Governmental decision) a percentage of 50% out of the monthly payment of the military for the spouse in the case the former switches garrison and the latter loses the job following the military partner. We can also mention that these articles have been in use since 2003, being established through the *Law no. 516* from the same year, but only for those military within the Ministry of National Defense. On the +the effects of the law, providing its applicability to all the institutions from the defense, public order and national security system.

An extremely important moment in the succession of these events which characterize the development of the army human resources management can be assigned to the process of societal democratization and individual emancipation itself. Thus, it is reaffirmed and stated that the military system is not only a closed nucleus of its social system but between the two entities there are multiple interactions. Basically, there are a lot of situations in which the opening is determined by the individual initiatives which, in the case of a constitutional state, is normal to express freely and not necessarily against the rules but finding the correct way of their applicability.

It is the case of modifying the *Military personnel status* (article 15 more precisely) through *Law no. 18/2006*, in order to "extend the possibility for the male parent who is an active military to be able to interrupt his activity and to be allowed to stay home and raise the

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[12] *Law 429/ 2003 concerning the Constitutional revisal*, published in the Romanian Official Monitor, Part I, no. 758 from 29 October 2003 – art. 16 alin. (3).

child...”[13]. The initiator of the legal project is a man from the Parliament but the idea belongs to somebody named Gabriel Hulea who raised the unconstitutional exception versus article 15 of the law, and the legal initiative is based on the *Constitutional Court Decision no. 90/2005* which allows the male military to stay home and raise children.

3. Important modifications within manning policies

In order to display the long queue of the legislative examples already mentioned, which depicts the integration of the armed forces human resources management system within the national social context, it is worth emphasizing all the modifications and adjustments to *The Status* through the *Law no. 53/2011*. This step, even if does not contain only favorable articles for the military but, on the contrary, stipulates some adjacent obligations requested by the accomplishment of the organization objectives – such as the obligation to participate in different missions within the Theatres of Operations – the merit of this intercession is the approaching manner versus the balance between the military job and the right for work dispositions, capitalizing the empowerment and the possibility to allow the military, in certain situations, a leave without pay.

However, within the relationship part-whole, not only *The Military Status* reflects the convergence between the military institutions and the civilian society. Some other examples which demonstrate this theory belonging to Morris Janowitz[14] are the political decisions overlapped with the legislation, alike to the ones related to the suspension of the compulsory military service during the peace time and the creation of the professional soldier corps which has a separate status, closely related to the military one, but much more anchored within those principles from the common law which govern the legal work relations. These can be melted not only into the western trends (most of the democratic states adopted the professional army pattern) but can also offer another postmodern army characteristic to the Romanian military system, thus we have the definition given by Charles Moskos[15]: the professional army with reduced man power, oriented towards nonviolent missions (humanitarian, peace keeping), dependent on civilian technological insertion, which accepts an alternative service and promotes the intellectual military and state man, integrating women without reserves.

To these, just in order to exemplify, a myriad of internal decisions endorsed and written down into specific legal documents can be added. There are innumerable attempts and successes also to adjust the military regulations in order to relax the existent differences and to adopt some rules which are already routine outside the military area. It is worth mentioning just a couple of recent ones, which have a direct influence on the human resources management field, among them being, as a reference point, the *National Defense Ministry Norms related to the organization and the functioning of the selection and hierarchism system for the military personnel career evolution*[16], based on the consolidation of the transparency and the equality principles but, mostly on the individual recourse regarding his/her own professional evolution.

The trend to adjust and integrate the human resources management processes at the level of the military organisation is very well depicted by the *Instructions concerning the recruiting, selection, professional training and the military personnel career evolution within the Romanian Armed Forces*[17], which establishes the human

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[13] The stenograph of the Deputy Chamber meeting from 21 November 2005, dealing with the legal input related to the modification of the article 15 from *Law no.80/1995 concerning the Military Status.*

[14] Marian Zulean, *op.cit.*, p. 11.

[15] Charles Moskos, *Armata, mai mult decât o ocupaţie?*, Editura Ziua, Bucureşti, 2005-https://sociologiemilitara. wordpress.com/domenii/sociologie-militara, accessed on May 16. 2015.

[16] *Minister of National Defense Order no. M.22/2010*, published in the Romanian Official Monitor, Part I, no. 113 from 19 February 2010.

[17] *Minister of National Defense Order no. M.30/2012*, published in the Romanian Official Monitor, Part I, no. 229 from 05 April 2012.

resources system responsible for providing the military education and the military basic training and reorients the balance between the individual aspiring and the institutional needs in order to encourage the efficiency, competitively and professional performance. Also, the same orientation appears in the new *Methodology for the military personnel job assessment elaboration within the National Defense Ministry during peace time*[18], which proposes a professional evaluation system using valor scales, detailed enough in order to be adopted and adapted by some other public or private institutions. The perspective of aligning to the principles and values of the society in its integrity is also reflected in terms of professional soldiers through some recent amendments to *The Enforcement Instructions for applying Law no. 384/2006 concerning the professional soldiers status*[19], within the National Defense Ministry which adapts the document to the requirements of the new *Penal Code* and re-enact, in a constitutional manner, the right for an academic military education for them.

All these legal modifications are not only intended to create different advantages to people, part of them emphasizing the need for professional performance which is not only a military characteristic. Under such circumstances, there were and still are controversies and even convulsions within the military system. Despite all these opinions, pros and cons, any personal or group dissatisfactions, the sum of these modifications are nothing else but different ways of opening the armed forces human resources management system towards the society and of integration within the national system.

Joining the trends underlined at the level of the entire society represents a fact which reflects the *social character* of the armed forces human resources management system, which displays not only the belonging of its military organization members to the national social system through their citizenship, but mainly through its obedience towards the norms, requests, tradition and other aspects of the national cultural model imposed and requested by the society[20].

Somehow, even these controversies, which belong to those preoccupations related to that measure according to which the army must be considered a sui-generis organization, are determined by the dualism of its members, the fact that they belong to the military system and to the society, at the same time determining different resonances versus the characteristics of the cultural organization.

As already presented into another study[21], "within it, the army does not represent something unique and homogenous, ... the armed forces are a mosaic of subcultures", resulting that, even if sometimes unseen, some fluctuations at the level of the human resources management system and the obsessive temptation for changing, modernizing and imposing its own perception offer the possibility for new trends and orientation to those values which define the cultural organizational ensemble, at least from the human resources management perspective.

Under such circumstances, we can debate on a small inquiry accomplished during 2009[22], its task being to catch some of the aspects of the manifest cultural organization within the tactical level structure and their implication on the human resources management main activities. The conclusions demonstrated a lack of congruence between the present and the perspective cultural organization type, catching a transition in from a rule-oriented to a employee-oriented organization

[18] *Minister of National Defense Order no. M.122/2014,* published in the Romanian Official Monitor, Part I, no. 863 from 27 November 2014.

[19] *Minister of National Defense Order no. 78/2014 for the modification and addition to the Instructions which enforce within The National Defense Ministry the Law no. 384/2006 concerning the professional military status approved through the National Defense Minister Order no. .M.39/2010,* published in the Romanian Official Monitor, Part I, no. 534 from 17 July 2014.

[20] Petre Duțu, *Impactul integrării în alianţa nord-atlantică asupra managementului resurselor umane din armata României,* Editura Universităţii Naţionale de Apărare "Carol I", Bucureşti, 2005, p. 10.

[21] Marian Zulean, *Diferenţe culturale între armată şi societatea românească,* Editura Universităţii Naţionale de Apărare „Carol I", Bucureşti, 2005, p. 1

[22] Monica Franga, Cătălin Samoilă, *Aspecte ale culturii în organizaţia militară. Analize şi tendinţe*, studiu publicat în volumul de lucrări susținute în cadrul Simpozionului naţional de psihologie militară "Psihomil VI".

and from rigorous control to flexibility and openness.

There has clearly appeared the tendency towards an organization on its own integral level, which is that of changing its characteristic cultural type, from hierarchy to clan. Under such circumstances, the organizational cultural identity was not a powerful one, the four main cultural types (autocrat, clan, market and hierarchical) being represented in a closer manner, but at the level of the trends, the comparative analysis of the results displayed the following: human preference for a much more flexible organizational environment against a rigid and excessively formal one, and for charismatic leaders who need to assume a mentor role against those interested in rules and the accomplishment of tasks by using the managerial functions of organization, coordination and control.

Even if the study was not extended and not even an upgraded one, it has succeeded to present some implications at the level of human resources management, which may be yet valuable (the preference for personnel policies related to the predictability and work safety, the promotion of certain values like stability, performance and efficiency) but, from the perspective of our attempt, the most important conclusion is that the changing trend appeared at the level of the cultural type was determined by the socio-economic context in which the organization being studied is integrated. This fact reaffirms not only the inseparable links between the army and society, but mostly imposes the adoption of some markers of the human resources management system oriented to what happens within the social framework.

Conclusions

Without any question, the examples above demonstrate that the modern army (or better say postmodern one) accepts the complex inputs of the society. This means that the military themselves process different aspects of the social reality which, sometimes, overstep the bureaucratic barriers, rigorous and extreme planning in order to adopt innovator solutions as a quick response to the permanent changing security environment and to its own administration, with an accent on the human resources management side.

That is why decisional factors must show enough understanding of the current reality, basically, the fact that a redefinition of the main components of the human resources management system, speaking from the point of view of a classical, pre-modern army, in the spirit of a spectacular efficiency raising through a strong unity of command as a professional performance guarantee, might be possible only if all the coordinates determining it and all the implications have been perfectly adapted to the new social realities. It is nothing else but the result of the fact that the professional military organisation is part of the society and also a representative of the armed forces within it, manifesting the tendency towards democracy. Under such circumstances, it is obvious that the military themselves assume citizens' liberties under the sign of responsibility, all the interdictions and the limitations imposed by the law but, on the other hand, they can barely accept supplementary barriers related to the system bureaucracy.

Here applies the essential issue concerning the measure in which the armed forces human resources management can be opened without being in contradiction with the principles of the military system in general, such as "the unity of command". In fact, it is not about the issue of altering the applicability of some principles, but the possible alteration of the organizational fundamental objectives and mission. The present opinion remains consistent in relation to the existence of broader possibilities to reshape the armed forces human resources management system without having the so called undesirable implications related to keeping and developing the armed forces combat capacity. But we need to agree that such an ample organizational change must be prepared accordingly, in a strategic way, and especially for the next generations, taking mainly into account its mental implementation at the organizational culture level.

Also, organizational change must keep a

balance, from the individual point of view, between what can be gained and what can be lost. Moreover, we need to take into account the fact that the social democratization and the individual emancipation allow, more and more difficult to quit some rights without having an appropriate extrinsic motivation. Thus, it is obvious that this trend, which is intensely felt, should be accepted and capitalized for the interest of the military organization.

It is for sure that the acceptance and valorization of some social life markers into the advantage of the armed forces cannot be translated as an exaggerated trait of the military institution social character, even if, by representing the state, the army borrows this attribute too. It is out of the question that exercising this characteristic of the state does not represent an army attribute through its personnel policies.

Anyway, even if, in a certain manner, through its internal consistency as a concept, the military institution has a pronounced social character, its main trump being the human resource, − especially in those conditions in which the state's economic capacity as a representative of the society does not allow more than that −, under no circumstances the human resources management orientation should not give up from the principle of quality.

Within the context in which professionalism represents a declared purpose, the exigencies against the social input must be adequate, as an aspect of the personnel recruiting and selection processes. The Army must remain ¨the yardstick of professionalism and honor in front of the Romanian people[23]¨, and a more than necessary populist attitude within the framework of these processes does not bring an additional image of trust for the army among the population, unless maybe on a short term and without influencing the social elite. On the contrary, an adequate exigency for the military missions and objectives, expressed within the field of personnel selection, training and management, leads to a cohesive corps of specialists, very well trained which

bears the responsibility and innovation capacity and imposes respect at the same time.

The examples and the observations above lead to a clear conclusion that the military system is integrated within the social one and the armed forces human resources management subsystem acts as a powerful connection between the civil and military, representing a powerful link in this relationship as an expression of a social balance from specific to entireness. The human resources management is by all means an opening system which can integrate itself by accepting and adopting the social models and also through development and innovation, thus becoming a think tank and an action provider for the entire society.

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[23] Romanian President Klaus W. Iohannis address to the General Staff command and armed forces structure hail and farewell ceremony, Bucharest, 06.01.2015.

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Acknowledgement

INTERNATIONAL MIGRATION AND NATION STATE IN THE EUROPEAN UNION. CASE STUDY: ROMANIA

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International migration is a complex phenomenon that, beyond the displacement of population from one country to another, involves a number of elements with direct impact on State and national security. This paper briefly exposes some of the most popular models of migration, which correlates the international dimension of the phenomenon with the national one, focusing afterwards on the analysis in the European Union. In this context, the Romanian case study offers a clear illustration of the main trends prevailing at national and regional level. The phenomenon of international migration generates in our country both challenges and opportunities of demographic, social and economic nature, Romania having a triple stance: although it is mainly a country of origin for migrants, it is simultaneously a country of transit and destination.

Keywords: *international migration, nation state, country of origin, country of destination, transit country, European Union, Romania.*

Introduction

The global magnitude of the population' territorial mobility is an irrefutable truth. Globalization, although now seems to be a too much debated topic, cannot be analyzed without reference to the migration flows whose volume has increased in the last 25 years, despite the financial crisis. There is a considerable number of works dedicated to the post-Cold War international migration from at least two major reasons: on the one hand, it can be claimed the growing trend of migration after the fall of Berlin Wall, and, on the other hand, we must be aware of the fact that international migration is the second important component of demographic dynamics[1]. As stated in 1991 by the Romanian demographer Vladimir Trebici, immigration has the same meaning with births and the emigration with deaths[2]. At the end of 2013, the United Nations statistics recorded a total of 232 million international migrants, of which approximately 59% in the developed regions and 41% in the developing regions[3]. Moreover, in 2013, about two thirds of the world's migrants were hosted in Europe (72 million migrants) and Asia (71

[1] More details in Alexandra Sarcinschi, *Migraţia ca problemă de securitate: studiu de caz - România*, "Carol I" National Defence University Publishing House, Bucharest, 2014.

[2] For more details see Vladimir Trebici, *Populaţia Terrei: demografie mondială*, Scientific Publishing House, Bucharest, 1991.

[3] United Nations Department of Economic and Social Affairs/Population Division, *International Migration Report 2013*, 2013, p. 1, URL: http://www.un.org/en/development/desa/population/publications/pdf/migration/migrationreport2013/Full_Document_final.pdf, accessed on 04.11.2014.

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million migrants), and in the period 1990-2013, the European countries have experienced an annual increase of about 1 million migrants, of which 43% were born in Europe, 22% in Asia, 18% in Africa and 14% in Latin America and the Caribbean[4].

In this context, the European Union is the best subject for a case study: it is a form of regional integration while maintaining national boundaries, offers the chance of a post-national European citizenship and, at the same time, Schengen rules apply only to some of the Member States[5]. Even if the international feature of EU migration can be challenged in that there is a single European citizenship, in our opinion, the existence of such citizenship does not affect it because, in theory, migration is defined in relation to national boundaries.

Thus, we call on Articles 13, 14 and 15 of the *Universal Declaration of Human Rights* which state that everyone has the right to move freely and choose their residence within the borders of each state, everyone is entitled to leave any country, including his own, and to return to his country[6]; in the case of persecution, everyone has the right to seek and enjoy asylum in other countries[7], and, most importantly, everyone has the right to a nationality and no one shall be arbitrarily deprived of his nationality nor denied the right to change nationality[8]. These three articles should be the cornerstone of the whole process of migration management. But, unfortunately, it is difficult to achieve this desideratum, because migration is as the same time opportunity and challenge in terms of development and therefore in terms of security. The most visible European cases are represented by Italy, facing a massive influx of immigrants from Africa (according to numbers

in the media, over 60,000 migrants arrived in Italy in the first half of 2015 and more than 1,800 have died trying to cross the Mediterranean[9]) and Hungary, which unilaterally decided to suspend indefinitely the agreement with the European Union on accepting asylum seekers, invoking the need to "protect the interests of the Hungarian people"[10].

1. Classic models of migration and their contemporary applicability

Depending on various criteria, literature[11] identifies several types of migration:
- Immigration and emigration, according to a given population (inputs, respectively outputs);
- Internal and external (international) with reference to a particular national territory;
- Temporary and permanent, depending on the temporal criteria;
- Legal and illegal, based on the criterion of compliance with legislation on migration in countries of destination and in the one of origin;
- Voluntary and forced, by the main factor that caused it (eg. economic conditions or state of war);
- Return migration and circular migration, depending on the migrant's decision to return either to their home country or to go in another country of destination;
- "Brain drain", labor migration, students

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[4] *Idem*, pp. 2-3.

[5] 22 out of 28 EU Member Statess are Schengen membres. URL:http://ec.europa.eu/dgs/home-affairs/what-we-do/policies/borders-and-visas/schengen/index_en.htm, accessed on 04.11.2014.

[6] Article No. 13 of the *Universal Declaration of Human Rights, 10th of December 1948*, URL: http://legislatie. resurse-pentru-democratie.org/legea/declaratia-universala-a-drepturilor-omului.php, accessed on 04.11.2014.

[7] Article No. 14 of the same Declaration.

[8] Article No. 15 of the same Declaration.

[9] G.S., *Lăsată singură de UE în faţa zecilor de mii de imigranţi, Italia se revoltă. Matteo Renzi: Dacă ideea de Europă vă aparţine, atunci pastraţi-o. Dacă nu există solidaritate, atunci nu ne faceţi să ne pierdem timpul*, Hotnews, 25.06.2015, URL: http://www.hotnews.ro/stiri-international-20258331-lasata-singura-fata-zecilor-mii-imigranti-italia-revolta-matteo-renzi-daca-ideea-europa-apartine-atunci-pastrati-daca-nu-exista-solidaritate-atunci-nu-faceti-pierdem-timpul.htm, accessed on 25.06.2015.

[10] F.a., *UE trage Ungaria de urechi: Să ofere imediat clarificări*, Ziare.com, 2015, URL: http://www.ziare. com/europa/ungaria/ue-trage-ungaria-de-urechi-sa-ofere-imediat-clarificari-1369847, accessed on 25.06.2015.

[11] According to Traian Rotariu, "Migraţie", in Cătălin Zamfir and Lazăr Vlăsceanu, *Dicţionar de sociologie*, Babel Publishing House, Bucharest, 1998, pp. 351-353 and Russell King, *Theories and Typologies of Migration: An Overview and a Primer*, Malmö Institute for Studies of Migration, Diversity and Welfare, Malmö University, 2012, URL: http://www.bit.mah.se/MUEP, accessed on 04.11.2014.

migration, marriage migration, migration for family reunification, migration caused by climate change, etc. - with respect to both the individuals' role and status in society, and also to their motivation to migrate.

Another classification of migration is based on the level at which the analysis is performed. According to British expert on migration issues, Jessica Hagen-Zanker, theories centered on the micro level analyze individual decisions concerning the migration, while those theories oriented towards the macro level study aggregated trends, and, between them, the average level (meso) addresses migration issues at the level of household or community, seeking to explain both the causes and perpetuation of this phenomenon[12]. In this regard, J. Hagen-Zanker puts together a model of the correlation between theory and the level of analysis regarding migration (Fig. 1):

migration as a system; world systems theory; social capital theory; institutional theory; network theory; cumulative causation.

One of the most popular migration patterns shown in the previous figure is the "push-pull" model, whose origins are in the works geographer Ernst G. Ravenstein. In 1885, he published his landmark work "The Migration Laws", which assumes that the unfavorable environment in a particular area, with reference to social and economic conditions, *pushes* people to migrate to an area whose conditions attract them (*pull*)[14]. This assertion is true also nowadays as one of the most frequently mentioned causes of migration is the economic one[15].

Ravenstein's theory was developed by Everett S. Lee, in an 1966 article entitled "A Theory of migration", and although he does not use the same words, he explains migration through a four

Micro-level	Meso-level	Macro-level
Migration cause: Individual vexpectancies (e.g. improving survival, wealth etc.)alues / desires /	**Migration cause perpetuation:** Collectives / social networks (e.g. social ties)	**Migration cause perpetuation:** Macro/level opportunity structure (e.g. economic structure: income and employment opportunities differentials)
Main theories: - The "push/pull" factors - Neoclassical micromigration theory - Behavioral models - Theory of social systems	**Main theories:** - Social capital theory - Institutional theory - Network theory - Cumulative causation - New Economics of labor migration	**Main theories:** - Neoclassical macromigration theory - Migration as a system - Dual labor market theory - World system theory - Mobility transition

Figure no. 1: Theories of migration and the correlated level of analysis[13]

J. Hagen-Zanker further classifies these theories also according to their goal:

- To explain the causes of migration (*initiation of migration*): neoclassical macro-migration theory; migration as a system; dual labor market theory; world systems theory; mobility transition; the "push/pull" factors; neoclassical micro-migration theory; behavioral models; theory of social systems; the new economics of labor migration;

- To explain the perpetuation of migration:

factors model: area of origin associated factors, destination space associated factors, intervening obstacles and personal factors[16].

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[12] Jessica Hagen-Zanker, *Why Do People Migrate? A Review of the Theoretical Literature*, Maastricht University, MPRA Paper No. 28197, January 2013, URL: http://mpra.ub.uni-muenchen.de/28197/, accessed on 06.11.2014.

[13] *Ibidem*, p. 5.

[14] According to Ilie Bădescu, "Migraţia internaţională ca problemă socială. Studiu de caz: migranţii pentru muncă din Italia", in *Sociologia azi*, No. 10/2013, p. 9, On-line Edition, URL: http://sociologia-azi.ro/wp-content/uploads/2013/10/ Chestiunea-sociala-a-migratiei-pentru-munca.pdf, accessed on 05.11.2014.

[15] Jose Antonio Alonso, "International Migration and Development: A review in the light of the crisis" in *CDP Background Paper* No. 11(E), December 2011, p. 8, URL: http://www.un.org/en/development/desa/policy/cdp/cdp_background_papers/bp2011_11e.pdf, accessed la 05.11.2014.

[16] Everett S. Lee, "A Theory of Migration", in *Demography*, Vol. 3, No. 1, 1966, pp. 47-57, URL: http://www.jstor.org/discover /10.2307/2060063?sid=21105654333423&uid=2&uid=3738920&uid=4, accessed on 05.11.2014.

Lee argues, like Ravenstein does, that each area has some factors that attract individuals and others who make them leave. Although migration might be the result of comparison between the conditions/factors specific to the origin area and the conditions/factors of the destination area, the decision is influenced by the set of obstacles that can be overcome or not. Moreover, during this process also occurs the perception that the individual has both about conditions in his country and in the country of destination, and the type of personality that he has (resistant or not to change).

Based on these ideas, Lee argues the decision to migrate is never completely rational and for some people the irrational component is predominant[17]. On this framework, the author raises three sets of hypotheses that explain migration based on: the volume of migration in different conditions, the development of flows and contraflows, and, not the least, the characteristics of migrants.

Although the theoretical framework developed by Lee does not meet the academic requirements of a theory, some of his assumptions can be verified through current statistics on migration, particularly those that analyze the correlation between the volume of migration and economic conditions and states that:

•   *the volume of migration within a given territory varies according to the variety of areas* included within that territory;

•   the volume of migration varies according to *the diversity of people* (more immigrants from areas with greater diversity);

•   the volume of migration is connected to the *difficulty of overcoming obstacles* that appear; the volume of migration depends on *fluctuations in the economy* (economic expansion increases the volume of migration);

•   if not imposed severe control, the volume and rate of migration tends to increase over time;

•   the volume and the rate of migration vary according to the *level of progress* in a country or in an area, (Lee quotes Ravenstein here: "Migration is life and progress, and a sedentary population means stagnation"[18]).

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[17] *Ibidem*, pp. 6-7.
[18] Ernst G. Ravenstein, "The Laws of Migration", in *Journal of Royal Statistical Society,* LII (June, 1889), 288, apud Everett S. Lee, *op. cit.*, 1966, p. 54.

2. Three facets of European countries in relation to international migration. Case study: Romania

Migration in the European Union is a complex issue due to the fact that, on the one hand, there are very substantial migration flows among EU countries, but in the context of a European citizenship, and, on the other hand, there is an important flow of immigrants from non-EU countries towards EU countries. This translates into identifying two migration corridors: from North to North and from South to North, where North and South are not defined in geographical terms, but development ones. Identifying the main migration corridors reveals that some European countries, especially former communist ones, have three facets relative to migration: country of origin, country of destination and transit country.

In this context, the case study on Romania is a clear illustration of this triple faceted stance and, moreover, is an example for analyzing the phenomenon of migration as a generator of problems, but also of benefits.

Romania is, therefore, both a country of origin, transit and destination for migrants. These three facets of our country in relation to migration will be analyzed below, in connection with national security, but not before taking a brief nationwide picture of the phenomenon.

Evolution of the crude rate of net migration in Romania[19] demonstrates some of the assumptions argued in 1966 by Everett S. Lee and introduced in the first part of this paper, namely the dependence of the migration volume on the fluctuations of the economy (economic expansion increases the volume of migration) and the efficiency of a migration flux varies on the economic conditions (it is high during prosperity times and low during economic crisis). In Figure no 2, the evolution of crude rate of net migration shows the changes experienced by this indicator in periods of sharp economic problems. An example is the recent

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[19] According to Eurostat, it is assumed that any change in the population number that cannot be attributable to births and deaths is attributable to migration: the indicator *crude rate of net migration* is defined as the percentage of net migration during the year from the average population in that year.

years, which were marked by the global financial and economic crisis.

Figure no. 2: The evolution of crude rate of net migration in Romania during 1990-2013, according to official statistics[20]

According to data provided by Eurostat, even in two of the three peaks of the crude rate of net migration during the period under review, Romania has the highest European values: if in 1991, the country recorded a value of -17.6, Croatia and the former Yugoslav Republic of Macedonia recorded values of -39.1, respectively, -40.1; moreover, in 2001, Romania recorded a crude rate of net migration of -25.2, and Bulgaria recorded a value of -26.7[21].

The last population census conducted in Romania showed a decrease in the number of population of 21,680,974[22] in 2002 to 20,121,641 inhabitants in 2011[23]. The latest information provided by the National Institute of Statistics indicates a decrease of nearly 180,000 people in population in just three years, to 19,942,642

inhabitants[24]. This decrease is caused not only by the negative growth of population (-3.5% for 1,000 capita), Romania being included in the European trend of aged population, but also by the migration of Romanian citizens phenomenon that has a much larger scale than that evidenced by statistics, according to Vasile Gheţău. As stated by the Romanian expert, the total number of Romanians living in other countries exceeded 2.5 million in 2012[25]. Of these, 48% are from urban areas and 52% from rural areas[26].

In relation to migration, Romania is also clearly and predominant a country of origin for migrants. The causes are multiple and they are related in particular to the transition from communism to democracy, but also to the economic development of our country.

According to T. Rotariu, *causes of migration in developing countries*, focusing on migration, consist of the following: *uneven development (economy, health, education, etc.); easing of traditional social constraints; rapid population growth; political and economic marginalization;*

[20] Source: European Commission, Eurostat, *Crude rate of net migration plus adjustment per 1000 inhabitants,* URL: http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tsdde230&plugin=1, accessed on 11.11.2014.

[21] *Ibidem*.

[22] According to the National Institute for Statistics, URL: http://colectaredate.insse.ro/phc/public.do?siteLang=ro, accessed at 11.11.2014.

[23] According to the National Institute for Statistics, URL:http://www.recensamantromania.ro/wp-content/uploads/2013/07/ rezultate-definitive-RPL_2011.pdf, accessed on 11.11.2014.

[24] According to the National Institute for Statistics, URL: http://www.insse.ro/cms/ro/content/populatia-rezidenta-si-numarul-estimat-de-emigranti#, accessed at 11.11.2014.

[25] Vasile Gheţău, *Drama noastră demografică. Populaţia României la recensământul din octombrie 2011. Reprofe-sionalizarea României IV*, Compania Publishing House, Bucharest, 2012, p. 10.

[26] *Ibidem*, p. 18.

environmental degradation and conflict, war or persecution[27].

Some of these causes can be explanatory factors for the present state of Romania[28], although at least one of them - persecution - is specific to the communist period. The paper *"Inertia and change. Social dimensions of transition in Romania"* brings to debate the subject of migratory movements during the communist period, noting that the communist regime has exercised a strict control over the international mobility of the population, resulted in the restriction of access to passports and the "anathematization" of those who seek to leave the country and those who, in various ways legal or not, managed to emigrate and settle in another country (usually the Western bloc)[29]. Analyzing statistics and specific documents of that period,

migration (identified, in some cases, as a form of forced migration), legal immigration with the main purpose of family reunification and political asylum[30].

If, during communism, emigration could be considered a risk to national security in that it could destabilize the regime by creating a strong Diaspora to lobby against it in Western Europe, at present, the situation is more complex, given that a high rate of net migration affects almost all spheres of life in Romania: from the social and demographic ones to the economic and military spheres.

A statistic published by the National Institute for Statistics reveals the preferred destination countries for Romanian migrants (especially those in the age group 18-40 years): Spain, Italy, Germany, Austria, Israel, Canada and the US
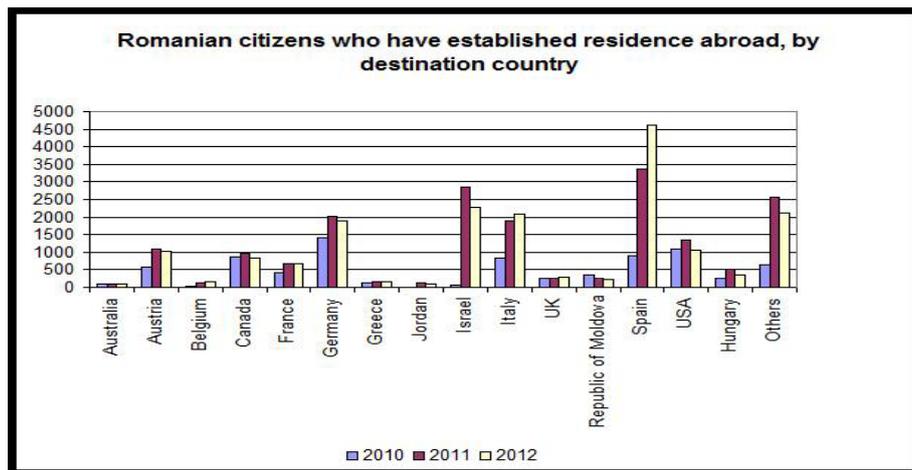
Figure no. 3: Developments in the period 2010-2012 of the number of Romanian citizens who have established residence abroad, by destination country[31]

the paper identifies ways in which migration was possible during the communist period: ethnic

(Figures 3 and 4).

These figures represent only a part of the total migrants of Romania: their total number as from 1 January 2012 were 2,341,263[32], and their distribution by country of destination is different from the distribution of those who established their residence in other countries: Italy, Spain,

[27] Traian Rotariu, *Demografie şi sociologia populaţiei. Structuri şi procese demografice*, Polirom Publishing House, Iasi, 2009.

[28] Romania is a developing country according to the classifications of World Bank, International Monetary Fund, Organization for Economic Cooperation and Development, etc.

[29] Horvath Istvan, "Migraţia internaţională a cetăţenilor români după 1989", pp. 199-222, in *Inerţie şi schimbare. Dimensiuni sociale ale tranziţiei în România*, Traian ROTARIU and Vergil VOINEAGU (Eds.), Polirom Publishing House, Iasi, 2012.

[30] *Ibidem*.

[31] Tudorel Andrei, *România în cifre – breviar statistic 2014*, National Institute for Statistics, Bucharest, 2014.

[32] National Institute for Statistics, *Anuarul statistic 2013. Capitolul 2. Populaţia*, URL: http://www.insse.ro/cms/ro/content/anuarul-statistic-2013, accessed on 17.11.2014.
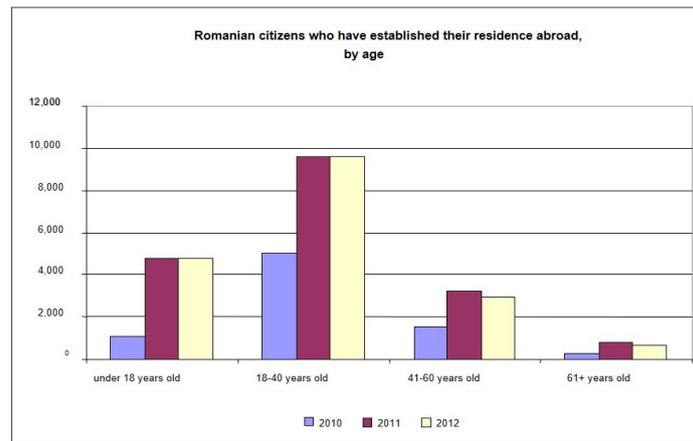
Figure no. 4: Developments during 20101-2012 of the number of Romanian citizens who have established their residence abroad, by age[33]

Germany, United Kingdom of Great Britain and Northern Ireland, Hungary, etc. (Figure no. 5).

Other analysis, such as the *International*

Of them, most live in Italy and Spain, but the figures provided in this regard by Romania, as a country of origin dramatically differ from the
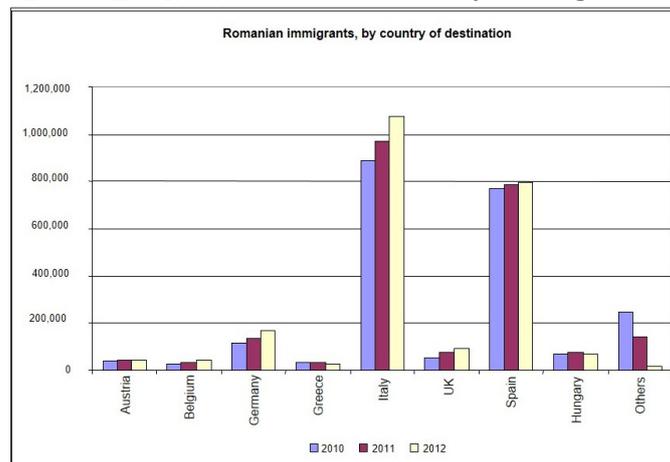
Figure no. 5: Development of the number of Romanian immigrants in 2010-2012 by country of destination [34]

Migration Outlook 2014 (International Perspective on Migration 2014) developed by the Organization for Economic Co-operation and Development, show that the number of Romanians living abroad is over 3 million people, mostly from urban areas and in the age group of 20-44 years (71% of all Romanian immigrants), that is the most productive labor category[35].

figures provided by the countries of destination (Figure no. 6).

Unfortunately, during the research endeavor for this article[36], we found not only a consistent discrepancy between national statistics and those of other countries or international organizations that monitor migration, but also between official declarations or between them and national statistics. Thus, in 2013, the Minister Delegate for Romanians Abroad declared during the Forum

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[33] Tudorel Andrei, *România în cifre – breviar statistic 2014*, National Institute for Statistics, Bucharest, 2014.

[34] National Institute for Statistics, *Anuarul statistic 2013. Capitolul 2. Populaţia*, URL: http://www.insse.ro/cms/ro/content/anuarul-statistic-2013, accessed on 17.11.2014.

[35] OECD, *International Migration Outlook 2014. Romania*, 2014, DOI:10.1787/migr_outlook-2014-35-en, accessed

on 03.12.2014.

[36] Also see the above mentioned work, *Migraţia ca problemă de securitate: studiu de caz - România*, "Carol I" National Defence University Publishing House, Bucharest, 2014.
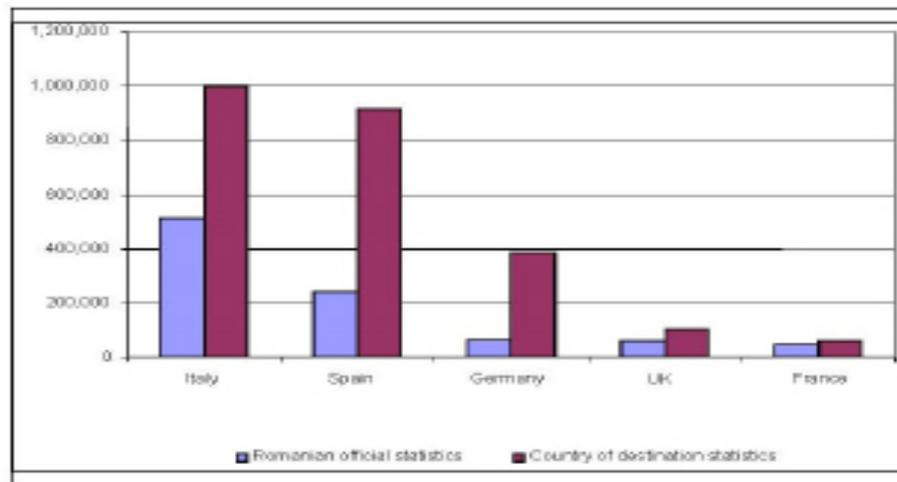
Figure no. 6: Discrepancies between official statistics published in Romania and those published by the countries of origin regarding Romanian migrants (estimate 2011-2013)[37]

for Romanians Abroad held in Bucharest, that, according to the latest estimates, approximately 4-5 million Romanian are working or living outside the country (this figure is attributed to the emigrants, the total number of migrants including another 2-3 million people who live in communities with historical Romanian identity around our country) [38].

Finally, it should be pointed out that emigration represents for Romania not only a potential security challenge, but also a source of benefits embodied in the contribution of remittances to the budget (in 2013, remittances accounted for 1.9% of Romania's GDP[39]) and in some cases, in improved living standards for migrants' families and communities. In addition, the country of origin could benefit from the migration for education in conditions in which migrants are returning to the national labor market.

Another general issue of migration in Romania is *immigration*. According to the European Commission, in 2012, non-EU citizens composed 0.14% of Romania's population[40]. According to the General Inspectorate for Immigration, in the same year, in Romania were living 102,800 legal residents from: Republic of Moldova (13,300 persons), Turkey (8,900 people) and China (6,900 people). Also, a significant number of EU citizens were registered as residents in Romania: 10.700 Italians, 7,400 Germans and 5,700 French[41]. Of all immigrants recorded in national statistics in 2012, more than 52% fall in the age group of 15-24 years, while approximately 38% in the group of 25-64 years[42].

Of the total number of requested visas predominant are the visit ones (29.67%), followed by cultural/scientific/humanitarian/ medical treatment (21.06%), business (14.88%), and tourism (13.91%)[43]. 90% of each category of requests are approved, most of them coming from Republic of Moldova, Ukraine, Turkey, Russian

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[37] According to: National Institute for Statistics, Organization for Economic Cooperation and Development and Migration Policy Institute.

[38] C.S., "David: În afara graniţelor trăiesc între şase şi opt milioane de români", in *Ziua Veche*, 13.12.2013, URL: http://www.ziuaveche.ro/actualitate-interna/social/david-in-afara-grani%C8%9Belor-traiesc-intre-%C8%99ase-%C8%99i-opt-milioane-de-romani-201479.html, accessed on 25.11.2014.

[39] World Bank, *Annual Remittances Data (updated as of October 2014). Inflows*, 2014, URL: http://econ.worldbank. org/wbsite/external /Extdec/Extdecprospects/0,,contentM DK:22759429~pagePK:64165401~piPK:64165026~theSi tePK:476883,00.html, accessed at 17.11.2014.

[40] European Commission, *EU Home Affairs Background Statistics. Migration*, 2014, p. 3.

[41] OECD, *op. cit.*, 2014.

[42] National Institute for Statistics, *Migraţia internaţională a României*, Department of Editing Statistical Publications, Bucharest, 2014, p. 7.

[43] Romanian General Inspectorate for Immigration, *Buletin statistic în domeniul imigraţiei şi azilului*, Semestrul I 2102, p. 5, URL: http://igi.mai.gov.ro, accessed at 10.02.2015.

Federation, China, India, Belarus and Egypt[44].

With regard to work permits, the total of 1,551 work permits issued in 2012 by the Romanian authorities comprises: 51.84% permanent work permits; 37.4% - secondment; 6.38% - sport; 3.68% - highly qualified; 0.64% permanent studies; 0.06% - permanent, family reunification; the countries of origin for the majority of citizens who have requested such authorization are Turkey (27.66%) and China (11.67 %)[45].

Legal residents from non-EU countries are concentrated in Bucharest and Ilfov county, and the counties of Iasi and Constanta, while EU citizens prefer residence in particular in Bucharest (25.86%) and Western counties (Cluj - 6.37%, Timis - 5.89% and Arad - 5.42%).

In addition, European statistics recorded 125 asylum applicants per 1 million inhabitants in Romania at the end of 2012[46]. Statistics on asylum applications by applicant's country of origin place Algeria on first place (29.92%), followed by Morocco (17.23%), Afghanistan (8.72%), and Pakistan (8.37%)[47].

Regarding illegal residence, in 2012 were detected 1,617 foreigners from countries such as Republic of Moldova, Turkey, Tunisia, Algeria, Morocco, China, Serbia, Syria, Israel, Pakistan, etc. The motivation for this state was identified as follows: illegal stay (72.91%); attempted/illegal border crossings - exit (10.08%); rejected asylum procedure (4.45%); not complying with the return decision (4.14%); attempted/illegal border crossing - entry (2.6%); not complying with the purpose of stay (2.6%); Dublin Convention[48] (1.55%); illegal work (0.62%); subject to expulsion (0.62%); at the request of the structures of public order and national security

(0.31%), and others (0.12%)[49].

One of the most complex problems associated with migration is that of transit migration. The statistics, which are rarely public, indicate in the last ten years an increasing number of transit migrants in our country[50]; this situation derives both from Romania's geographic location in Southeastern part of Europe (bordering the Black Sea) and its membership to the European Union.

The status of transit country rests on two main dimensions: on the one hand, irregular migrants in transit to Western European countries (either traveling to their destination, or choosing to stay in Romania for profit - labor migration) and, on the other hand, legal or illegal migrants transiting our country for criminal purposes (terrorism, organized crime etc.).

In terms of size of the labor migration, the main element is the transition through our country from East to West in order to obtain residence in the Western Europe, but at least during the '90s, some migrants in this category have chosen to stay in Romania[51].

Instead, the most recent public analysis of the Romanian Intelligence Service regarding the second dimension of transit migration shows that, since 2013, a significant number of people in Western Europe and the Western Balkans have intention to participate in conflicts in Syria and Iraq, and reaching these parts of the world by traveling through Romania and Bulgaria[52]. This is not only associated to the simple transit of people to other regions of the world, but also to terrorism, human trafficking, arms and drugs

[44] *Ibidem.*

[45] *Idem*, p. 7.

[46] European Commission, *op.cit.*, 2014, p. 7.

[47] General Inspectorate for Immigration, *op.cit.*, 2012, p. 18.

[48] According to the UN Refugee Agency, there is a system that determines which country is responsible for examining an asylum application registered in an EU Member State or a state that is signatory of the Dublin Protocol, according to specific criteria to prevent multiple registration applications for the same case and to improve efficiency of procedures.

[49] *Ibidem*, p. 11.

[50] Bogdan Alexandru Suditu, Gabriela Prelipcean, Daniel Celu Vîrdol, Oana Ancuţa Stângaciu *Perspectivele politicii de migraţie în contextul demografic actual din România*, European Institute from Romania, Bucharest, 2013, p. 42.

[51] European Parlament, *Migration And Asylum In Central And Eastern Europe (Libe 104 En). Romania*, February 1999, URL: http://www.europarl.europa.eu/workingpapers/libe/104/romania_en.htm, accessed at 17.11.2014.

[52] C.Z., "SRI: Militanţi din Europa pleacă în Siria şi Irak prin România şi Bulgaria. Gestionarea riscurilor e dificilă fără instrumente legale", in *Actualitate HotNews*, 24.01.2015, URL: http://www.hotnews.ro/stiri-esential-19187606-sri-militanti-straini-pleaca-siria-irak-prin-romania-bulgaria-gestionarea-riscurilor-dificila-fara-instrumente-legale.htm, accessed at 12.02.2015.

trafficking, and organized crime in general.

According to the map of illegal migration and migration routes (Building Migration Partnerships), Romania is part of the series land routes from South and East to Western Europe, especially through Giurgiu and Bucharest[53]. In 2011, there were still major migration flows from Eastern and South-Eastern Europe to Western Europe, including not only migrants from the Balkans (especially Albania, Serbia and Bosnia and Herzegovina), but also migrants from Middle East and Asia transiting the region (mainly from Afghanistan, Iraq, Pakistan, and Palestine).

In this context, Romania is both on the Central and Eastern Europe route (this route transits or is originated in the Russian Federation, Ukraine, Republic of Moldova, Romania and Belarus, continuing through Poland, Slovakia, Hungary and/or Czech Republic to Austria, Germany and other Western countries) and on the Balkans route (this route transits or is originated in Turkey, continuing through the states of the Western Balkans to Italy, Austria and other European countries)[54].

Conclusions

For Europe, the issue of international migration has become more complex not only because of better economic and social conditions that most of the EU countries offer, but also because of the enlargement process. Thus, EU is facing, on the one hand, with massive migration flows from outside the Member States and, on the other hand, a significant flow of migrants between countries belonging to the Union. The accession of a large number of immigrants targeting developed European countries brought into attention both their status in relation to the targeted territory and the solutions to regulate this phenomenon. Even if migrants move within the same community, the European one, it is obvious that the phenomenon cannot be classified as internal, as migrants are crossing

national borders. The EU should regulate this situation taking into account national citizen rights, the European ones arising from the status of European citizen, and, most importantly, those deriving from the Universal Declaration of Human Rights.

Romania is part of the migration flows in Europe in three ways: country of origin, country of destination and transit country. In each of these three roles we can be identify both benefits and challenges to national security. Unfortunately, the analysis shows that, in the absence in any of the European countries (so neither in Romania) of effective policies to integrate migrants, benefits will not outpace security challenges.

From the above analysis, security challenges for the *country of origin* can be summarized as follows:

• "Brain drain", i.e. emigration of skilled workers to countries where their expertise is better paid and jobs offer stability and opportunities for promotion and career development. In this case, the destination country suffers a shortage of specialized staff in key areas such as health, engineering, computer science, architecture, research, etc.

• Increasing the number of emigrants for both age groups under 18 and 18-40 years, correlated with declining birth rates, causes the aging of population of that country (2013 prognosis of the Romanian Commercial Bank concluded that, in 2030, 1 of 5 Romanians will be over 65, and in 2060, 1 in 3 will have this age and every employee will support 1.5 pensioners). The effects of this trend might be reduce of the potential GDP, increased pressure on the state budget, and in particular, on public health and pension systems. Massive emigration of population in the age group of 18-40 years reduces the labor force, which causes on short-term problems on the labor market translated into lower productivity and incomes to the national budget, failure to pay state pensions and, ultimately, lower quality of life;

• Increasing the number of migrants for both age groups under 18 and of 18-40 years, reduces the short, medium and long term mass recruitment/conscription if necessary.

• Labor migration of the parents determines

[53] International Centre for Migration Policy Development, *I-Map. Interactive Map on Migration*, 2011, URL: http://www.imap-migration.org/index.php?id=2&L=0%29.I, accessed at 10.02.2015.

[54] *Ibidem.*

dramatic changes in terms of psycho-emotional development of children left behind (school dropout, school absenteeism, drug abuse, criminality), alter the traditional family model, and perpetuate migration.

• Massive flows of migrants to certain countries might cause the manifestation of ethnocentric, discriminatory and stereotyped behavior of the nationals of that country of destination against immigrants and their origin country, which can lead to diplomatic disputes between those countries. The problems are even more difficult to manage where immigrants are persons with criminal records or who have criminal activities in the countries of destination. In this case, the image capital of the country of origin at the international level will be undermined and the possible return of expelled migrants will cause a massive wave of crimes, as in destination countries through which they have initially passed.

Regarding the facet of the *country of destination*, in Romania:

• Immigrants replace the labor absence on the labor market, bringing economic benefits, although in the period of unemployment and adaptation to socio-economic conditions of the country of destination, migrants can be seen by the public as an economic burden in both the social security system and that of housing. In our country, the immigrant population is young, with over half of the legal immigrants being active on the labor market and at the age at which production potential is growing, but the drawback of this state is the one specific to any country of destination, namely the large volume of remittances coming out from our country.

• Replacement migration, i.e. balancing the population pyramid by receiving a certain number of immigrants to offset losses in the respective age groups, supported by adequate national policies, can be the answer to the need for compensation of the economic costs induced by aging population. In Romania, comparing the proportion of emigrants with the one of immigrants, immigration phenomenon appears to be relatively modest and insufficient to be considered for replacement migration.

• In some areas of the country where the number of immigrants is higher, there can be manifested deep differences between the resident population and immigrants, requiring government intervention through policies and strategies aimed at enhancing multiethnic, multicultural, multi-religious and multi-lingual tolerance.

• Massive flows of illegal migration may be correlated to organized crime and terrorism and represent a security challenge to the country of destination.

• Refugees and asylum seekers can create social unrest in the country of destination by organizing and engaging in opposition movements against the government of the country of origin.

• Mass refugee flows can damage the environment by building camps without the necessary health infrastructure.

• The potential increase in the rate of illegal immigration in the total immigration in Romania extends the country's evaluation period for integrating into the Schengen Area.

Regarding the status of Romania as a *transit country*, the following benefits and security challenges can be synthesized:

• The establishment of migrants from the active labor market category in the transit country increases the number of those who contribute to the economy but, unfortunately, in these cases, it is mostly about the underground economy;

• Deficient management of migration flows crossing the transit country, correlated to the stay of a certain proportion of migrants in this country, can produce an increase in xenophobic attitudes in the resident population;

• The increased number of establishments in the transit country of migrants to other countries, especially the illegal ones, extends the evaluation period for integration into the Schengen Area (the case of Romania);

• Illegal migrants can be affiliated to organized crime/terrorist groups that may actively target the country of transit or may use other similar organizations and even innocent citizens in achieving their goals. Deficient management of these issues may damage transit country's relations with the countries targeted by organized crime/terrorism groups.

Therefore, as the volume of the migration flows increases, patterns and implications of immigration have become more and more complex. European states are facing *a dilemma*: to ignore the issue of migration - since on the one hand, it is difficult to manage, and, on the other hand, bring economic benefits - or to confront it and create new debates related to fundamental human rights and the status of immigrants.

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NATO CHALLENGES IN THE CONTEXT OF HYBRID THREATS EVOLUTION

Teodora ZECHERU, PhD*

NATO faces a wide range of multidirectional and multitargeted military and non-military security risks, terrorist actions being surprising, extremely violent and often unpredictable: assassinations, abductions, firings, attacks with conventional ammunition or improvised explosive devices, suicide bombings, hijackings, cyber attacks, attack and occupation by force of strategic objectives, sabotages, etc. The use of asymmetric methods of combat is not limited to official war zones, in recent years military or public persons of NATO states becoming frequently targets.

Regardless the reasons for which these actions take place, hybrid threats must find echo not only in a defense strategy, but also in prevention and countermeasures. NATO must adapt continuously to respond promptly to the new challenges of terrorism expansion, which does not recognize or consider state boundaries, national laws or public interest.

Keywords: *security mechanisms, religion, improvised explosive devices (IEDs), media, hybrid response, technology.*

Introduction

NATO plays a key role for the Euro-Atlantic security reinforcement, this being illustrated by the continuous growth of its political role, political and military partnership, permanent openness and dialogue for creating new political partnerships, constant collaboration with other international organizations and the strategy addressed to support peacekeeping operations.

At the Riga (Latvia) summit in 2006, the North Atlantic Council stated that "we are facing complex and often interrelated threats such as terrorism, global expansion and with lethal results, as well as proliferation of weapons of mass destruction and appropriate means of action and challenges instability due to failed states or declining"[1]. Further, at the Summit held in Bucharest (Romania) in 2008, the North Atlantic Council has assumed that Member States shall ensure that they have "the kind of capabilities required to meet the security challenges of the 21st century, and to do so, [the Alliance] will transform, adapt and reform where necessary. Transformation is a continuous process and requires constant and active attention"[2].

The Alliance operates in a continuously changing environment, technological

[1] Riga Summit Declaration issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Riga on 29 November 2006, URL: http://www.nato.int/docu/pr/2006/p06-150e.htm, accessed on 10.04.2015.

[2] Scott Jasper, "Transforming Defense Capabilities: New Approaches for International Security", 2009, Lynne Rienner Publishers.

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developments and conceptual counterterrorist threats from recent years being generally positive, but uncertainties and risks remain, and could materialize anytime in acute crises.

NATO faces a wide range of multidirectional and multitargeted military and non-military security risks, terrorist actions being surprising, extremely violent and often unpredictable: assassinations, abductions, firings, attacks with conventional ammunition or improvised explosive devices (IEDs), suicide bombings, hijackings, cyber attacks, attacks and occupation by force of strategic objectives, sabotages, etc. These risks induce insecurity, instability and distrust, and potential for local economic, social and political crises, which can easily escalate regionally[3].

In support of asymmetrical combat actions, the most important actions contained in the operational programs are: planning, deterrence, prevention and rapid reaction. This set of measures is particularly difficult, terrorists using equally rudimental and high-tech technologies, a wide range of conventional weapons, equipment and CBRN agents.

1. NATO transformation policy

"The only means to win easily against reason are terror and force", wrote Adolf Hitler in *Mein Kampf*[4]. Although he violated all the international rules of the system, the boundaries and the state limitations, Hitler was not considered a terrorist. He acted both by force, by conventional means, and also by spreading terror through unconventional methods, aiming to build a new world. On a smaller scale, there are similarities between the strategy approached by Hitler and the action pattern addressed by certain terrorist organizations that rule along the same principles, aimed at the extermination of not only those who do not fall into the patterns of the new system that they want to create, but also for the invasion and violation of borders to spread their ideology.

The statement of NATO Secretary General in function, Jens Stoltenberg, from 25 March 2015, was realistic and forceful at strategic level, and referred to NATO current capabilities and the need of their improvement in order to optimize the North Atlantic organization response to current asymmetric threats:

"Allied Command Transformation (ACT) is a symbol of the strength of our Alliance and a symbol of our transatlantic bond. ACT plays an important role in NATO's continuous adaptation to a changing world. And in the last year, Russia's annexation of Crimea, its aggressive actions in Ukraine and the rise of violent extremism in North Africa and in the Middle East have really changed our security environment dramatically. […] One of our greatest strengths is our ability to adapt. For 40 years, during the Cold War, the challenge was clear and largely predictable. NATO deterred attacks and kept our nations safe without firing a shot. Then, for the next 25 years, we went out of area. Together with our partners, we went into combat beyond our borders to manage crises that could threaten us at home. This was a paradigm shift for NATO. And now as we are... as we see another major shift in the security landscape, NATO is once again making fundamental changes. Today, we do not have the luxury to choose between collective defense and crisis management. For the first time in NATO's history, we have to do both at the same time"[5].

Further, NATO Secretary General raised three of the key issues to be discussed during Warsaw Summit in July 2016: "First, how to deal with hybrid warfare? Hybrid is the dark reflection of our comprehensive approach. We use a combination of military and non-military means

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[3] G. Gabor, E.L. Ungureanu, "Military Transformation. Trends and New Strategic Visions", in *Strategic Impact* nr. 2/2014, Bucharest, Editura National Defence University "Carol I", pp. 25-29; Iova Titel, Dănuț Mircea Chiriac, "Asymmetry in Security Risks Area", in *Proceedings of the 9th International Conference "Strategies XXI"*, vol. 1/2013, Bucharest, Editura National Defense University „Carol I", pp. 105-109.

[4] Cornel Scurt, *România în războiul contra terorismului*, Dissertation paper, Babeș-Bolyai University, Cluj-Napoca, 2009.

[5] ***, NATO Secretary General: One of our greatest strenghts is our ability to adapt, 25 March 2015, URL: http://www.nato.int/cps/en/natohq/opinions_118435.htm, accessed on 30.03.2015.

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to stabilize countries. Others use it to destabilize them. […] So NATO must be ready to deal with every aspect of this new reality from wherever it comes. And that means we must look closely at how we prepare for; deter; and if necessary defend against hybrid warfare"[6].

The need for urgent transformation is based on the fact that the limits are expanding and terrorist tactics diversify. Terrorism transforms, various state and non-state actors transferring this phenomenon to a new category, that of hybrid threats. At operational and tactical level, one may observe a straight evolution of terrorists strategy and their way of operating: connections establish between terrorist organizations, insurgent groups and international organized crime; "homegrown" and "lone wolf"-type terrorists act financed by complex mechanisms[7]; psychological terrorist operations occur in the view of creating tensions between civilians and military; the access to research and development and, consequently, to advanced technologies has implications in unconventional operations with strategic impact.

Moreover, terrorist entities are directly involved in drug and human trafficking through extremely well organized networks from South America to North Africa, Europe and Central Asia[5], thus financing their armed attacks.

NATO's role as a leading provider of security transformed constantly in the past years. Now it includes, legally and legitimately, promptness in action on preventing or countering threats directly at their source. New directions of NATO strategy against terrorism come as result of a complex strategic and political process, moving from terrorist environment analysis to the evaluation of the NATO contribution in the fight against terrorism. NATO's security and collective defense mechanisms focus now on the effects generated by the use of kinetic means, developed with the help of information technology. Important planning and design measures are taken to ensure protection of vulnerable sites against terrorist threats, in order to prevent and defend against any

aggression towards any NATO member state, as stipulated in the Treaty of Washington.

2. Security standards challenge in the context of asymmetric threats

We belong to a world in continuous motion, in an era of globalization that involves socio-political, cultural and economic changes. These changes also exhibit at religious level, reflecting inherently at social and political level: terrorist groups rely on faith to gain followers in order to establish a new political and territorial order.

Throughout history, religion has often been the cause of war, but in the challenging moments of 2015, an overpassing of all "rules" of ongoing conflict is foreseen, through the increasingly aggressive and diversified actions of terrorists.

If the first four generations of warfare focused on territorial objectives, the fifth-generation warfare does not have a singular, state objective. The methods used in this war are hybrid, both conventional and asymmetric[8], and their segmental and decentralized nature allows the coexistence of several social or national groups with different ideologies or programs. This new type of warfare is equally functional and regional. The social nature of organizations and their involvement in social, media and internet environment increase the number of followers along with any kind of war directed against them. Members of these groups are not supposed to fully embrace the ideology and goals of the other members, but only one objective of the warfare. Modern terrorists are hybrid in nature and operate using both asymmetric warfare, and defense and conventional offensive, organizing themselves into real armies.

The Alliance recognizes that the terrorist threat exists and is maintained despite any efforts to prevent it and may constitute, at any moment,

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[6] Ibidem.

[7] Stefano Santamato, "The New NATO Policy Guidelines on Counterterrorism: Analysis, Assessments, and Actions", in *Strategic Perspectives* no. 13/2013, National Defense University Press, Washington, D.C.

[8] Candyce Kelshall, *Terrorist groups are not terrorists. They're violent transnational movements bent on creating a new world order*, available at http://www.defenceiq.com/air-land-and-sea-defence-services/articles/terrorist-groups-aren-t-terrorist-groups-they-re-/?utm_source=1-6361871014&utm_medium=email&utm_campaign=15+04+25+DFIQ+NL&utm_term=DFIQ_NL&utm_content=DFIQ_NL&mac=DFIQ1-3-AN20EH&disc=, accessed on 23.04.2015.

a direct military threat to the population, territory and its armed forces. Chemical and biological weapons and their means of proliferation remain a serious problem, together with the existence of powerful nuclear forces outside the Alliance, which must be taken into account in the context of maintaining North Atlantic security and stability. Thus, the purpose of NATO's transformation is to develop capabilities, interoperability and deployment capability of the armed forces by taking new directions in terms of doctrine and technological developments.

Equipment and technology needed to build these weapons of mass destruction and corresponding firing devices have become common, while detection and prevention of illicit trafficking of such materials and technological knowledge continues to be difficult. Non-state actors have shown their potential to create and use these types of weapons, along with IEDs, which are relatively easy to manufacture at low cost.

Thus, one of the key security challenges is the control of technology' global spread, which can be used for weapon production, leading to advanced military capabilities availability for terrorist organizations and allowing acquisition of advanced weapons systems, both offensive (ballistic missiles, drones, etc.) and defensive (anti-missile shields, etc.).

So far, the efforts of terrorist groups to acquire and use weapons of mass destruction, in particular of CBRN nature, are well known, but mostly unsuccessful. Therefore, given the globalized and hybrid nature of terrorism, unity in effort and an exhaustive approach are key requirements for all organizations that fight against terrorism. Alliance doctrine must keep pace with this changing context in which armed forces are used.

3. Hybrid threats – political, economic and social context

Asymmetric warfare, with intelligent and adaptable enemies, is the only way NATO forces may be subjected to challenge in the 21st century.

The asymmetric warfare focuses on the use of all available networks: political, economic, social and military, in order to convince the enemy leaders that their goals are either unachievable or too expensive to be favorable in terms of costs versus benefits. With such an approach, terrorist organizations avoid committing in direct tactical approaches, applying hybrid strategies to offset the situation in their favor and to disproportionate the effects.

The mechanisms developed by terrorist organizations are complex and difficult to annihilate. Terrorists are completely devoted to their cause. They are intelligent, adaptive, constantly seeking new ways to address the challenge of asymmetric routes, mostly aimed at achieving political gains.

In recent years, attacks on Jewish and military have become frequent (US, Texas, Fort Hood – 2009; France, Toulouse and Montauban - 2012; Germany, Frankfurt - 2011; Canada - 2014) or artists caricaturizing or insulting the Prophet Muhammad or the Islam (Theo van Gogh, Kurt Westergaard, Lars Vilks, Martin Rynja, Lars Hedegaard), using weapons and tactics increasingly in diversity. Unlike the last century, when terrorists operated in groups and planned bomb attacks with certain types of explosives, the beginning of the 21st century was marked by singular actions, using a wide range of weapons, including knives, hand tools or guns. However, the use of IEDs remained the preferred method of terrorist action (65% of incidents during 2008-2013).

If, before 2001, they used mainly mixtures based on chlorates or perchlorates, after 2001 peroxide-based mixtures were preferred (Germany – 2006, UK - 2007). Fertilizer-based explosives were used in several attacks in Italy - 2009 and Sweden - 2010. IEDs based on TATP[9] and PETN[10] were used in few jihadi terrorist attacks – "Richard Reid Shoe Bomb" in 2001, "Sajid Badat Shoe Bomb" in 2003, "Transatlantic

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[9] TATP – triacetone triperoxide, an explosive of extremely sensitiveness to heat, shock, impact, difficult to detect using standard explosive detection techniques.
[10] PETN – pentrite (pentaerythritol tetranitrate), one of the most powerful and used explosives for military purposes.

Airliners Plot" in 2006, "Underwear Bomber" in 2009. Reid and Badat received explosive devices from Afghanistan or Pakistan in 2001, while the Underwear Bomber obtained the PETN and TATP-based device from Yemen[11].

If, in terms of disarmament and non-proliferation of weapons of mass destruction, global monitoring raises to over 90% of available ammunition, which can still be used, the situation is not similar at all in terms of explosives and IEDs. This category of asymmetric threat is particularly dangerous because "underground" laboratories can gain access easily to necessary raw materials, and the devices manufactured are mostly undetectable. As regards the European area, after 2008, there were no cases of use or intent to use CBRN materials or weapons. Still, the spread of nuclear capabilities and new technologies outside the Alliance remains a real threat to the stability in the Euro-Atlantic area. Also, CBRN weapons and ammunition proliferation, in parallel with the development of innovative means of dissemination remains a serious problem that must be resolved. And despite real progress on international non-proliferation regimes, new challenges occur frequently[12].

Similarly, no global cyber attacks have been reported or countered neither before nor after 2008. The trend, from this point of view, is to use the simplest technologies, excepting the IEDs, where one cannot detect a clear trend, some cases being based on simpler technologies, possibly based on recipes from the Internet, and other by complex technologies, the IEDs existence being correlated with advanced training and assistance from outside and in conjunction with the magnitude of the attack.

There is a significant upward trend of terrorist actions of a single participant (from 12% to 38% after 2008), "homegrown" or "lone wolf", versus actions of small groups of terrorists, which remains the most common configuration terrorist cell (approx. 60%) in attacks with firearms or with IEDs[13].

As regarding the suicide terrorists, they do not belong to a particular culture or religion[5], although the vast majority of the attacks in the last 20 years occurred in the Middle East or with the participation of members of Islamic terrorist organizations, including here the well-known events from the US (2001), Moscow (2002), Madrid (2004), London (2005), Sochi (2013). In addition, women'[14] and children' motivation to participate in suicide terrorist attacks are numerous. Terrorist organizations recruit them due to the fact that security forces consider them weak and harmless, making difficult to fit their profiles to specific terrorist portraits. Although various NGOs claim that they are drugged and forced to participate in attacks, this has never been demonstrated, another current view considering that they are fighting for personal reasons: the need for revenge, the dream of independence or honor, religious faith or despair.

Terrorist movements have intensified their activity in the past two years, expanding dramatically in Europe: during 2014-2015 in Ukraine, there were over 330 IEDs incidents, plus over 15 attacks with IEDs or firearms in Turkey, Norway and France.

The beginning of 2015 was marked by the incident "Charlie Hebdo", which apparently united public opinion and political world against the threat of terrorist groups and religious fanaticism. Unfortunately, important leading politicians considered that the event was nothing more than an act of intelligence services for the French and American governments to have an excuse to continue attacks against Islamic states[15].

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[11] Petter Nesser, Anne Stenersen, The Modus Operandi of Jihadi Terrorists in Europe, in *Perspectives on terrorism* vol. 8, no. 6/2014, available at http://www.terrorismanalysts.com/pt/index.php/pot/article/view/388/html, accessed on 23.04.2015.

[12] ***, Allied Joint Doctrine AJP-01(D), 2010.

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[14] A. Andreescu, R. Cosea, "Suicidal terrorism. Women – The new face of terrorism «Black Widows»", in *Proceedings of the 9th International Conference "Strategies XXI"*, vol. 1/2013, Bucharest, Editura National Defence University "Carol I", pp. 193-199.

[15] Max Fisher, Major Russian TV network says US intelligence carried out the Charlie Hebdo attack, http://www.vox.com/2015/1/8/7514439/charlie-hebdo-russia-cia; Tyler Durden, Turkish President's Stunning Outburst: The French Are Behind The Charlie Hebdo Massacre; Mossad Blamed, http://www.zerohedge.com/news/2015-01-13/turkish-presidents-stunning-outburst-french-are-behind-charlie-hebdo-massacre-mossad, accessed on 15.03.2015.

This interpretation, supported mainly by pro-Kremlin politicians, but found also in a statement of the Turkish President, does nothing but to confirm that, little by little, terrorist organizations fulfill their purpose: to put states against each other, to affect the political factor and the masses psychologically and emotionally, and their actions – to cause cracks in the political and economic alliances.

Regardless the reasons for which these actions take place, hybrid threats should not find echo in a defense strategy, but through a strategy to counter and forecast; those involved must reason the context of these events, and media to present objectively and not empathically the real version of events.

Terrorist organizations split society, forcing children to fight against each other until one of them kills the other, maim civilians and take hostages their family members, in order to be able to blackmail them and force them to execute, on their turn, other terrorist attacks. A considerable number of civilians (men, women, children) are executed in front of the camera to spread fear, panic, terror. Extending attacks, attack recording or sending threatening messages to television or radio do nothing more but to increase media interest for the incident and to consume local response resources.

The media is sensitive to these issues and, having a great influence on the general public, contribute to the successful achievement of the purpose of terrorist organizations. There are NATO members who choose deliberately to stop the major negative flow of information to the general public, in the view to protect society from major psychological effects that, on long-term, can affect the population. And even when offering complex information related to sensitive topics, they choose to do that in a somewhat optimistic light[16]

A distinctive feature of opponents in this hybrid war is manipulation of the media to undermine the public support for their government and its policies. Thus, the hybrid response is the destruction of the public support and of the political will. While insurgents seek to defeat or destroy state entities, the present war targets directly the enemy will (and also that of the allies) to continue the war.

Thus, improving high-intensity conventional capabilities is a significant aspect of transformation and mandatory through its implications. Although it is unlikely, in the near future, that conventional aggressions occur on a large scale against the Alliance, the awareness on these types of threats is important. NATO may face a wide range of conventional and unconventional threats, both in the civil and the military area, often difficult to predict.

In the context of political issues, of territorial rivalries, of disputes for resources, or of abuses against the human rights, risks include uncertainty and instability in and outside the North Atlantic area and the possibility of regional crises at the periphery of the Alliance; therefore, adapting and developing NATO rapid response force strategy in terms of C-IED (Counter Improvised Explosives Devices) from defensive policy and status (before 2010), to an offensive stage (between 2010-2014) and an institutionalized one (currently under development).

Conclusions

The new NATO concept, real and effective, *Attack the Networks (ATN)*, designed to neutralize IEDs and insurgent networks in theaters[1717] is the result of an extensive technological, strategic and political process. NATO strategic concept refers mainly to security and stability keeping and contributes to the spirit of democracy and the peaceful resolution of conflicts. However, the fight against terrorism will not be able to delineate the military, the rules of war, which is, moreover, the difficulty to overcome in such confrontations. Asymmetric threats will continue to be directly related to the society's vulnerabilities, evolving with the emergence

[16] Berivan Orucoglu, Turkey and the West Part Ways on 'Charlie Hebdo', http://foreignpolicy.com/2015/01/14/turkey-and-the-west-part-ways-on-charlie-hebdo/, accessed on 15.03.2015; Robert Spencer, Obama: Media Overstates Terror Threat, http://www.frontpagemag.com/2015/robert-spencer/obama-media-overstates-terror-threat/, accessed on 18.02.2015; Monika Schwarz-Friesel, Helge Skirl, *Metaphors for Terrorism in German Media Discourse*, http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1038&context=revisioning, accessed on 22.03.2015.

[17] Counter-IED Report, published by Delta Business Media Limited, Autumn/Winter 2013.

and multiplication of conflicts and crises.

Given the patterns of the past 10 years, the terrorist threat is expected to continue its diversification and scale. After the evaluation of the pattern of action, for the next period (3-5 years) hybrid terrorist attacks are estimated to consist in conventional munitions, IEDs and armed assaults and will pursue important and vulnerable goals: international organizations, public institutions, urban agglomerations, infrastructure, communications and networks, people with public visibility, as one of the most important goals of terrorism is to create outrage, panic, insecurity and fear.

Therefore, NATO must adapt continuously to respond promptly to the new challenges related to the development of terrorism, which ignores national borders. It is necessary for the security of NATO member states and partners to rely on continuous improvement countermeasures capabilities, defense and protection against hybrid threats, including research and development, advanced technology, cooperation with civil organizations and cooperation in the field of cyber security.

The national priorities on state security and individual freedom must be directed to the public interest, which now have shown a real necessity to train a large number of national and international experts in the fields of C-IED, intelligence, and cyber security.

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8. *** www.nato.int, accessed on 30.03.2015.

9. ***Allied Joint Doctrine AJP-01(D), 2010.

10. ***Counter-IED Report, published by Delta Business Media Limited, Autumn/Winter 2013.

DEVELOPMENT OF NATO CAPABILITIES AND INTEROPERABILITY OF ALLIED FORCES THROUGH SMART DEFENCE AND CONNECTED FORCES INITIATIVE

Robert-Mihai POENARU*

The international security environment is in a constant change. New threats to the Euro-Atlantic security frequently appear, and the North Atlantic Alliance, the main political-military organization with responsibilities in maintaining the security of this space, must find new solutions to deal with them.

In the context of the global financial and economic crisis, one of the biggest challenges that NATO is facing is regarding the development of the capabilities that are needed. At the Chicago summit was launched the Smart Defense initiative, through which can be developed capabilities which at national level would have been difficult or even impossible to be developed.

Keywords: *smart defense, Connected Forces Initiative, NATO capabilities, interoperability, Comprehensive Approach, NATO's summit in Wales.*

Introduction

NATO is, by definition, a political-military organization whose main tasks consist, according to the Strategic Concept in collective defense, crisis management and security through cooperation[1],

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[1] ***, *Active Engagement, Modern Defence. Strategic*

and all this tasks are reflected in specific actions undertaken by the Alliance. Since the end of the Cold War, NATO has asserted as a major actor and a factor of stability at international level. The Alliance has undertaken many actions beyond the borders, given by the Member States, mainly in actions to combat terrorism and in crisis management. Behind this type of action, there was the belief that crises and conflicts that occur beyond the borders of the Alliance may affect its safety and, therefore, it is preferable to stop such a situation where it appears.

1. Theoretical and methodological particularities and operational implications of smart defense implementation

In order to be able to respond to threats, NATO was often put in the position to adapt to the characteristics of the changes in the international security environment, which

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Concept for the Defence and Security of the North Atlantic Treaty Organization Adopted by Heads of State and Government at the NATO Summit in Lisbon, 19-20 November 2010, pp. 7-8, URL: http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf, accessed on 1 June 2015.

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involved the generation of new capabilities which were required to effectively address security challenges. In the context of the global financial and economic crisis, this need has proved more difficult to accomplish. A response has been identified by NATO in the form of *smart defense* initiative, which involves generating military capabilities under austerity conditions. Thus, *smart defence* initiative is meant to generate capabilities and to develop or maintain running existing ones.

The lessons learned, resulting from various operations conducted in the Western Balkans or in Afghanistan highlighted the importance of addressing all dimensions of a crisis, and the importance of using both civilian and military instruments in its management. The Comprehensive Approach to crisis management is one of the most viable solutions and in this regard, NATO is benefiting from a unique set of capabilities, both civilian and military, in order to respond to any type of threat.

At the Chicago Summit in May 2012, Heads of State and Government of the Member States have launched smart defence, an initiative through which NATO can develop or purchase expensive military equipment needed not only to maintain the ability to comply the tasks undertaken within the Washington Treaty and the Strategic Concept, but also to achieve the proposed goals of having a modern, highly interconnected, good equipped, trained and properly managed Force in 2020. The Summit was one of the essential steps in developing this initiative. At the time, there was approved a concrete package of multinational projects, which aimed force protection, improve supervision and instruction[2].

Smart defense can be defined as a concept through which the Alliance members are encouraged to cooperate in the development or acquisition of modern military equipment in a coherent and efficient manner in terms of budgetary austerity. These equipments are developed in common and are meant to be shared with the other Members in case that are needed. In this regard, smart defense is based on three main components − specialization, prioritization and cooperation. Another important characteristic of this initiative is that it is based on voluntary action made by the Member States, for theirs benefit and through them. Therefore, transparency, the engagement of multinational capabilities, the involvement of the states, even those that are partners, in multinational projects, the close cooperation with the EU and the realization of some arrangements regarding the identification of funding solutions are essential parts of *smart defense*. In other words, *smart defense* has a profound multinational commitment nature and the decision of involving in any project of this type belongs exclusively to each state.

At the Chicago Summit, the Heads of State and Government of NATO member states agreed that the projects undertaken under *smart defense* initiative will target those critical capabilities identified at the Lisbon Summit as necessary to be developed. *Smart defense* is a solution for the development of those critical capabilities listed in the summit of Lisbon[3]. In this case, it's about missile defense, intelligence, surveillance and reconnaissance, maintaining readiness, training and education of the forces, active engagement and force protection, high precision guided munitions, cyber defense and intelligence common services[4].

As we previously mentioned, *smart defense* is based on three major components: prioritization, specialization and cooperation.

In this way, *prioritization* implies prioritizing nationally defined priorities and aligned them with those defined by NATO. Although this is not a fundamentally new aspect, and it had been

[2] ***, Summit Declaration on Defence Capabilities: *Toward NATO Forces 2020*, 20 May 2012, URL: http://www.nato.int/cps/en/natohq/official_texts_87594.htm, accessed on 26.06.2015.

[3] ***, Lisbon Summit Declaration Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Lisbon, 20 November 2010, URL: http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf, accessed on 1 June 2015.

[4] Cristina Bogzeanu, "Pooling & Sharing and Smart Defence. Beyond the concept", in the *International Scientific Conference Strategies XXI. The complexity and dynamics of the security environment*, Edited by "Carol I" National Defence University, Bucharest 2013, vol. 2, p. 289.

representing a challenge to the Alliance before the launch of the initiative[5], we strongly believe that, from 2012, the framework for a transparent approach based on cooperation has been improved and the states had taken into account cost-effectiveness so that they can achieve the goals of the Alliance in terms of *capabilities*.

Specialization means that NATO will focus its efforts on the development of specific types of capabilities that constitute strong points at national level. This also implies that other types of capabilities will be developed by the allies. In order to talk about specialization, it is necessary at first to coordinate the defense budget cuts of the states, when they occur.

Smart defense cooperation component addresses the need for joint action of the Member States regarding the collective work on projects conducted under *smart defense*. In this context, cooperation constitutes a process that happens between Member States both for the generation of capabilities and for the common use them. Also, the cooperation between NATO and the EU in this regard is an important issue, given the fact that the two organizations share a considerable number of Member States, the partnership between the two organizations, and the fact that the EU had launched in the same period, a similar initiative - *pooling & sharing*.

The defense ministers of the Member States met in a summit on 26 February 2014 and decided that the further development of *smart defense* is still considered a necessity. Only by having one set of proper capabilities, the Alliance can face the threats from the international security environment and, through this initiative, these capabilities can be generated in a short time and with a budget so small.

NATO Secretary General at the time, Anders Fogh Rasmussen, noted in a statement that "during the operations, including here Libya and Afghanistan, we have identified the areas in which our capabilities are not sufficiently

developed or too few countries have them"[6]. Because the characteristics of the international security environment are in a constant change and a variety of threats are appearing, the Alliance must ensure the capabilities to fulfill the duties and missions undertaken under the Washington Treaty and the Strategic Concept. In order to ensure the collective defense, at the NATO summit in Wales, the Allies approved a series of measures concerning NATO response to new security challenges.

In this regard, there was developed and subsequently approved *NATO's Action Plan* for increased reaction. This plan contains a set of necessary measures in order to cope with the changes that are occurring in the international security environment, both in the vicinity of the borders of the Alliance and in more further regions, such as the Middle East or North Africa, given that the instability in these areas can generate negative repercussions on the Euro-Atlantic security in a lesser or greater way.

Through these measures, there will be ensured continuous military presence and activity in all environments (air, land and sea) in the eastern part of the Alliance. The measures adopted shall include the components needed in order to ensure that the Alliance can fully meet the current security challenges.

Specifically, according to the Wales summit Declaration, it is supposed that these measures "will significantly enhance the responsiveness of our NATO Response Force (NRF) by developing force packages that are able to move rapidly and respond to potential challenges and threats. As part of it, we will establish a Very High Readiness Joint Task Force (VJTF), a new Allied joint force that will be able to deploy within a few days to respond to challenges that arise, particularly at the periphery of NATO's territory. This force should consist of a land component with appropriate air, maritime, and special operations forces available. Readiness of elements of the VJTF will be tested

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[5] Constantin Mincu, "NATO's "Smart Defence" between theoretical concept and reality", in *Annals, Series on Military Sciences Journal*, Edited by the Military Science Department of the Academy of Romanian Scientists, no. 3/2012, pp. 29-38.

[6] Press conference by NATO Secretary General Anders Fogh Rasmussen following the meeting of the North Atlantic Council in Defence Ministers session, 26 February 2014, URL: http://www.nato.int/cps/en/natolive/opinions_107408.HTM, accessed on 4 June 2015

through short-notice exercises. We will also establish an appropriate command and control presence and some in-place force enablers on the territories of eastern Allies at all times, with contributions from Allies on a rotational basis, focusing on planning and exercising collective defence scenarios."[7]. All these are part of the deterring measures undertaken in the context of the recent Ukrainian crisis, but, in my view, it is also an opportunity for the checking of the viability and effectiveness of *smart defense* initiative.

2. Aspects regarding the appearance and development of the Connected Forces Initiative

After the Allied withdrawal from Afghanistan in 2014, NATO had to find new ways to maintain a high level of training for the troops. In order to maintain and develop the level of interoperability of the troops, the Allies launched the Connected Forces Initiative (CFI). This implies the participation of allied forces in joint exercises that are meant to facilitate joint action of forces[8]. CFI is under the direct supervision of the Defense Ministers of the Member States.

This initiative is largely based on the lessons learned in the theaters, especially the one in Afghanistan. CFI creates a favorable environment for cooperation between NATO member states in terms of training and joint exercises with high relevance in the context of the escalation of Ukrainian crisis, and given the concerns regarding the amplification of the instability at NATO's eastern border.

Furthermore, CFI forms the framework for the training exercises component and NATO Action Plan for increasing reaction (Readiness Action Plan − RAP), that is also developed in order to discourage violent actions at the eastern border of NATO and approved at the Wales Summit. According to data provided on NATO official website, the objectives of this initiative are: training, development of interoperability, both among the allies and with partner countries and the maximum use of the technical developments.

At the Wales Summit, from a large range of activities included in CFI, there has been approved a set of directions in which the Allies will focus their efforts in the near future: updating NATO policy in terms of education, training, exercises and evaluation (ETEE); expanding NATO training concept developed for the period 2015-2020; a large-scale exercise in 2015; major exercises in the Program starting with 2016; continued progress in implementing technological aspects of CFI; a command center for the Special Forces component under the direct command of SACEUR[9].

CFI and the purposes for which it was created carry considerable relevance in the context in which the security threats remain a constant presence, but also because they are becoming increasingly diverse. An example in this regard is the recent actions of Russia, which affect the sovereignty and the territorial integrity of Ukraine. To this, we can add the threat from the south, where ISIL group conquers new territories belonging to sovereign states. CFI may, in these circumstances, be one of the solutions for providing the necessary training of NATO forces and in which they can conduct exercises, and in this manner it can be ensured the training and exercises of the forces within RAP that was adopted at the Wales Summit. Although it was developed because of the Ukrainian crisis, RAP contributes to the creation of NATO 2020 forces by improving the availability and the response capacity[10].

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[7] *** Wales Summit Declaration adopted by the Heads of State and Government participating in the meeting of the North Atlantic Council in Wales- 4 to 5 September 2014, Press release 6 September 2014 URL: http://www.nato.int/cps/en/natohq/official_texts_112964.htm, accessed September 14, 2014.

[8] Mirela Atanasiu, *,The implications of Romanian's participation at the development of capabilities in international framework organized by NATO and EU trough the initiative of Smart Defence and Pooling and Sharing on the revision of the Romanian Armed Forces Transformation Strategy*, Edited by "Carol I" National Defense University, Bucharest, 2014, p. 14 .

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[9] ***, Connected Forces Initiative, updated 16 September 2014, URL: http://www.nato.int/cps/en/natolive/topics_98527.htm, accessed on 1 June 2015.

[10] *Ibidem*.

Connected Forces Initiative (CFI) plays a major role in the efforts to maintain the high level of training of allied forces and their ability to assume the full range of missions, and to respond to future challenges. This initiative shows the adaptability that NATO has in facing new threats.

In this regard, recently, the Allies held a series of large-scale exercises that aimed not only to act as measures in order to discourage, taken because of the eastern border of the Allience tensions, but also to ensure and develop the level of interoperability among them. Furthermore, in our opinion, these exercises have served the proper way in which the troops were familiarized with the equipment that were acquired / developed through programs / projects such as *smart defense.*

Sea Breeze 2014 was a multinational exercise which took place in the Black Sea, on 8 September 2014 and that had the participation of three NATO ships. This exercise was a demonstration of NATO's commitment to strengthen its capacity to cooperate with partner navies. The exercise consisted in testing the ability of the Allies to perform operations such as maritime interdiction, communications, search and rescue, force protection and navigation. At this exercise took part soldiers from five Member States: US, Ukraine, Romania, Turkey and Georgia[11].

Also, a series of exercises that are designed to increase interoperability between special intervention units, interconnect forces and putting them in a position to work under stress and in critical situations were held during the year 2014-2015. At the Alliance level, it is necessary to create a Response Task Force that is flexible and well equipped. In this purpose, in Romania there is held an annual exercise known as ROU SOFEX (Romanian Special Operations Forces Exercise).

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[11] ***, *NATO ships take part in multinational 'Sea Breeze' exercise in Black Sea*, 8 September 2014, URL: http://www.nato.int/cps/en/natohq/news_112997. htm?selectedLocale=en, accessed on 2 June 2015.

Conclusions

Smart defense and Connected Forces Initiative represents some complementary and interdependent NATO initiatives, the first being designed to develop the capabilities that require considerable investment, but necessary to preserve the Alliance's ability to comply with the goals undertaken, and the second is designed to create the necessary framework for interoperability and the capacity development for the efficient use of these capabilities.

The main problems that NATO is facing regarding the improvement of capabilities, so it can deal with new threats are those generated by time and resources. However, the allies must achieve the objectives that they have proposed in the regard of capabilities by 2020 so that NATO can have a force well-trained, well-equipped, fast deployable, interoperable, and capable of responding to any threats.

Given that, at present, NATO carries out crisis management operations, it is necessary that the comprehensive approach of the crisis situation would be taken into account as part of the process in which the Allies are generating the capabilities. Thus, among other capabilities, the Alliance should include a civilian crisis management capability, and in this way to allow the Alliance to have such an approach.

The dynamics and the changes of the characteristics from the international security environment, the risks and security threats, their increasing number and variation in nature, require continuous adaptation from NATO, which can be translated into modernization at the conceptual, structural and operational level.

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Acknowledgement

CONSIDERATIONS CONCERNING HYBRID WAR

Florin-Marian BARBU*

The conflict in Ukraine brought into the attention of the entire world a new and unique way of aggression attributed to Russia, named in the Western world "hybrid war". This represents a mix of strategies and tactics aimed at combining the combat methods, at using tactic success to obtain the strategic effects by rapid exploitation of the advantages within cognitive and moral field.

A warfare can not be hybrid only by the capabilities used and its effects, unless approached from the theoretical and logistics perspective, especially for its understanding and combat. Some principles belonging to the classical theorists such as Sun Tzu and Clausewitz and new theorists, like Mao and the supporters of 'Unlimited War' and fourth generation war can be used to describe hybrid war, which show that this issue is not an absolute novelty.

Hybrid war' emergence is not the end of the traditional or conventional war, but will add more complexity to the defence planning process in the 21st century.

Keywords: *hybrid war, Russia, Ukraine, NATO, modern conflict.*

Introduction

Recent events held in Ukraine brought to the attention of the whole world a unique way of aggression attributed to Russia, named by the Western world "hybrid war". Events triggered since March 1, 2014 had ended by so called Republic of Sevastopol and Crimea joining Russian Federation[1], actions taken with strong support from the Moscow. The moment basically represented the source of the spread of the crisis across the eastern part of Ukraine, which generated a real civil war between Russophiles separatists and Ukrainian authorities from Kiev.

Even if Russia rejected any allegation on its involvement in the Ukraine crisis, at least NATO demonstrated that Russian armed forces did conduct directly military operations using both maneuver units, special operations forces and fire support units inside Ukraine, and continued to support separatists by providing them with armored vehicles, supplies, even, artillery and rocket launchers[2]. As a consequence, any effort to establish peace in the region had been jeopardized by Russia's actions and it maintained a lot of pressure on Ukrainian government, which proved to be unable to manage the crisis.

Beyond this obvious fact, analysts from

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[1] Crimeea crisis: Russian President Putin's speech annoted in BBC news, 19 March 2014, available on http://www.bbc.com/news/world-europe-26652058, accessed on 9 March 2015.

[2] Doug Stanglin, "US says Russia has outright lied about Ukraine", in USA Today, 29 August, 2014, available on http://www.usatoday.com/story/news/world/2014/08/29/ukraine-russia-friday/14785073/, accessed on 9 March 2015.

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Independent Analytical Centre for Geopolitical Studies "Intel Borysfen" appreciate that aggression against Ukraine in its initial phase was started in a concealed manner many years ago, even in the early 2000[3], thus achieving the conditions for destabilizing the country. This was possible because of several vulnerabilities in the state's functioning. The main actions concerned mainly political and economic field, being supported by a massive information campaign, whose climax was reached in the second part of 2013, its virulence being recognized by General Philip Breedlove, the Supreme Allied Commander Europe (SACEUR)[4].

Speaking about military dimension of the conflict, in my opinion, Russia has adopted quite a smart hybrid scheme of maneuver, the concept of operations including both conventional military actions and unconventional activities in order to deceive Ukrainian forces. Deploying conventional military forces in close vicinity of the Ukraine border, Russia probably forced Ukraine to mass their own armed forces in that threaten areas, achieving what in military language means "fixing the enemy". Simultaneously, Russia had fueled the rebels in the southern and eastern areas of the country and at a certain time it had backup them with Special Forces, depicted by the mass media as "little green men"[5]. That was probably the center of gravity of whole action, which placed the Ukrainian forces in a very difficult position to disperse the military power in order to face all challenges coming from both threats. In addition, the lack of adequate military capabilities[6], in particular intelligence assets,

had been demonstrated by the inefficiency of Ukrainian security forces reactions to rebels' actions which pushed the country in a real chaos. In essence, with minimal efforts and costs in comparison with a conventional war, Russia has imposed its will on Ukraine in a "cheap war", which officially has never started.

1. Validation of the hybrid warfare in the Alliance

The reaction of international community to the Ukrainian crisis was complex, the overall approach being to initial criticize Russia's behavior and later on to apply economical sanctions. These sanctions have cut Russia's access to Western money markets and forced its significant state companies to ask for massive state support that will further limit the government's capacity to meet its social commitments. Despite that, Russia maintained its aggressive posture, which almost raised the western concerns. All eastern countries, near Ukraine, vocally asked for more actions against Russia, the majority being placed in the military domain.

As a consequence, NATO Summit in Wales included on the agenda the Ukrainian crisis and decided that the allies support Kiev by strengthening existing programmes on defence education, professional development, security sector management, and security-related scientific cooperation with Ukraine[7]. On the other hand, the Alliance considered initiating significant new projects with a focus on command, control and communications, logistics and standardisation, cyber defence, military career transition and strategic communications. NATO also promised to provide assistance in the medical field for those wounded in action and to enhance the NATO advisory presence in country.

[3] Strategy and Tactics of Hybrid War in the Context of Russia's Military Aggression against Ukraine, November, 24, 2014, available on http://bintel.com.ua/en/article/gibrid-war/, accessed on 30 May 2015.

[4] John Vandiver, "SACEUR, Allies must prepare for Russia hybrid war", *Stars and Stripes*, September /4/2014, available on http:// www.stripes.com/news/saceur-allies-must-prepare-for-russia-hybrid-war-1.301464, accessed on 30 May 2015.

[5] Vitaly Shevchenko, "Little green men or Russian invaders"?, in *BBC News*, available on: http://www.bbc.com/ news/world-europe-26532154, accessed on 9 March 2015.

[6] Jo Biddle, Dmitry Zaks, "Kerry says Russian troops

withdrawing from Ukraine", in *Yahoo News*, available on: http://news.yahoo.com/kerry-says-russian-troops-withdrawing-ukraine-194344634.html;_ylt=AwrBT. GCiT5U qaiawhrxnyoa, accessed on 9 March 2015.

[7] Joint Statement of the NATO-Ukraine Commission, 04 September 2014, available on: http://www.nato.int/cps/en/natohq/news_112695.htm?selectedLocale=en, accessed on 12 March 2015.

In terms of providing military-technical assistance, NATO abstained to pronounce, only the support provided by several Allies on a bilateral basis being accepted. That raised again concerns on NATO ability to protect a partner country. Artis Pabriks, Latvia's former minister of defense and foreign minister, articulates that along with diplomatic efforts and economic sanctions against Russia, NATO should provide Ukraine with resources, such as modern communication equipment, intelligence sharing and cyber assistance in order to resist the Russian invasion, suggesting at the same time that any failure in managing the eastern crisis might endanger NATO members' future security[8].

In addition, the major conclusion from the NATO Summit refers to the necessity to reconsider the new security challenges posed mainly by Russia and the risks and threats emanating from the Allianceț southern neighborhood, Middle East and North Africa. The main instruments to address the current threats have been developed under NATO Readiness Action Plan, including challenges coming from hybrid warfare threats.

The hybrid warfare threats defined in the Wales summit declaration *as a wide range of overt and covert military, paramilitary and civilian measures employed in a highly integrated design[9]*, a definition which has been built, in my opinion, to describe the recent behavior of Russia, taking into consideration that a given study from 2010 of the Allied Command Transformation (NATO ACT) on this type of threat tackle issues somewhat differently. Thus, the concept of NATO reference FXX 5000/0100/TT-0651/NU0040 on military contribution to countering hybrid threats as the first official document at ally level, they were presented as "threats from opponents who have

the ability to simultaneously use conventional and unconventional means to achieve their objectives"[10], maintaining a sufficient level of generality, compared with 2014 definition, where unconventional resources are explicitly detailed ("paramilitary and civilian"), the way to use them being also described ("at sight or hidden").

The solution identified by the NATO ACT study to counter hybrid threats was another relatively new concept at the time, namely "comprehensive approach", aimed at employing a wide range of lethal and non-lethal actions carried out in a jointly manner by military actors and civilians or coordinated implementation of the full range of collective resources available, including diplomatic, military, intelligence and economic. In this regard, in May 2011 NATO conducted a week-long exercise on "fighting hybrid threats" based on a fictitious scenario designed to test the viability of the two key concepts - "hybrid threats" and "comprehensive approach "[11]. The main conclusion is subscribed to the idea that the Alliance' efficiency in combating hybrid threats depends on the ability to understand these threats and to use existing instruments and tools in a smart way to deal with emerging challenges.

Even if the hybrid approach of the current security problems were included the hybrid threats, at NATO level was not given enough attention to this type of challenge until the Ukrainian crises started, aspect backed up by the Declaration following the 2014 Summit: "It is essential that the Alliance possesses the necessary tools and procedures required to deter and respond effectively to hybrid warfare threats, and the capabilities to reinforce national forces. This will also include enhancing strategic communications, developing exercise scenarios in light of hybrid

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[8] Artis Pabriks, "NATO Must Stop Russian Aggression in Ukraine", in *The New York Times*, 9 September 2014 edition, disponibil la URL: http://www.nytimes.com/roomfordebate/2014/09/08/should-nato-be-helping-ukraine-face-russia/nato-must-stop-russian-aggression-in-ukraine, accessed on 12 March 2015.

[9] Wales Summit Declaration, Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Wales, http://www.nato.int/cps/en/natohq/official_texts_112964.htm? selectedLocale=en, accessed on 12 March 2015.

[10] Sascha-Dominik Bachmann, "Hybrid threats, cyber warfare and NATO's comprehensive approach for countering 21st century threats – mapping the new frontier of global risk and security management", in *Amicus Curiae*, No. 88, Winter 2011, p. 14, available on: http://journals.sas.ac.uk/amicus/article/view/1671/1552, accessed on 25 March 2015.

[11] Michael Miklaucic, "NATO Countering the Hybrid Threat", 23 September 2011, available on: http://www.act.nato.int/nato-countering-the-hybrid-threat, accessed on 26 March 2015.

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threats, and strengthening coordination between NATO and other organizations, in line with relevant decisions taken, with a view to improving information sharing, political consultations, and staff-to-staff coordination. [...] We have tasked the work on hybrid warfare to be reviewed alongside the implementation of the Readiness Action Plan".[12]

From purely military perspective, I appreciate that the pragmatic measures taken by NATO to implement specific measures in order to increase the responsiveness of the Alliance consist in redesigning the NATO Response Force, through the establishment therein of Very High joint Task Force (VJTF), with a total of about 5,000 troops that can act within up to 5 days and intensify joint training program, which is already projected by 2020 with a focus on practicing procedures specific for rapid intervention on allied territory.

2. Aspects concerning the evolution and nature of the hybrid warfare

There is a consensus that the future conflicts will be as complex as human society will be, and the tendency is for combatants to blend all available forms of war, conventional and non-conventional, most probably simultaneously. This approach is described[13] as a relevant element of the "hybrid warfare" approach, in which the challenger will engage asymmetrical techniques to exploit vulnerabilities of the enemy. The greatest challenge in the future will be determined by the belligerants' capacity to identify the demarcation lines between the forms the warfare take place, the real danger being those states or non-state entities that will use the entire spectrum of tactics and technologies in innovative combinations in order to accomplish the strategic objectives established to meet their own strategic culture, geography and aims.[14]

The concept of "hybrid threat" is rooted in the 2006 conflict between Israel and Hezbollah and driven by the requirement to describe the complexity of a new space of confrontation, in which Hezbollah fighters captured Israel Defense Forces, simultaneously combining the classic military capabilities with the irregular innovative ways of combat in a rapid manner, in order to create immediate strategic effects.[15]

Adopting the concept was not perceived as a real source of doctrinal and organizational revolution in military affairs, being obvious that, conventionally, combatants constantly use a combination of combat methods, according to the means available to achieve the desired objectives, as demonstrated the recent conflicts that usually at war, were used both conventional and nonconventional forces, which, although coordinated at strategic level, were often separated geographically and have not been integrated at operational level. What is new is that versatility and simultaneous actions of hostile actors is determined by a complex approach of the use of technology in support of different methods and means of warfare, which, undoubtedly, are factors that can offset or neutralize military superiority of conventional forces[16].

Hybrid actions incorporate a full range of different modes of warfare including conventional or asymmetrical modes executed by classic military forces that can include, in an extreme approach, terrorist acts and violence on the population and actions to favour public disorder. These activities are operational and tactical directed to achieve synergistic effects in the physical and psychological dimensions of conflict[17].

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[12] Ibidem.

[13] *** Strategic Trends Programe, Future Character of conflict, available on: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/33685/FCO-CReadactedFinalWeb.pdf

[14] Frank G. Hoffman, "Hybrid Warfare and Challenges", in *Joint Force Quarterly*, no. 52, 1st quarter 2009, p. 35, available on: smallwarsjournal.com/documents/

jfqhoffman.pdf, accessed on 27 March 2015.

[15] Brian P. Fleming, *The Hybrid Threat Concept: Contemporary War, Military Planning and the Advent of Unrestricted Operational Art*, School of Advanced Military Studies United States Army Command and General Staff College Fort Leavenworth, Kansas, 2011, available on: www.dtic.mil/cgi-bin/GetTRDoc?AD=ada545789, p. 1, accessed on 28 March 2015.

[16] Ibidem, p.1.

[17] Frank G. Hoffman, Conflict in the 21st century: The Rise of Hybrid Wars, Potomac Institute for Policy Studies, Arlington, December 20017, p.8, available on http://www.potomacinstitute.org/publications/Potomac_

According to the military analyst Frank G. Hoffman, arguing with historical examples ranging from the Napoleonic campaigns, the hybrid warfare seems to be a modern variation of what has been called compound warfare, which begins with a regular force augmenting its operations with irregular capabilities. Hybrid warfare's operative stratagem starts by an irregular warfare − the irregular forces augmenting their capabilities with conventional weapons. This situation creates a new level of ferocity by blending the fanaticism of irregular warfare with military capabilities.

Another example of warfare approach from the hybrid perspective may be represented by Romania's defense system in the communist era. The military doctrine of that time, so called "defense of all people", was inspired by the Yugoslav military doctrine and was based on the broad idea that the response to any aggression may include both conventional and unconventional means[18]. This kind of doctrine was tested by the Yugoslavs in 1971 through a major exercise called "Freedom-71".They simulated an enemy thrust, highly mobile. The defender's regular units mounted a defense which slowed the enemy's tanks, amphibious carriers, and airborne troops; the defending units then withdrew to avoid a disastrous frontal battle, thus preserving the own firepower. During the second stage, as the enemy pushed farther into the interior, it was resisted by a combination of regular, territorial, and irregular forces of the defender which, attacking from the flanks and the rear as well as the front, reversed the attack, after an advance of 30 km in two days. The enemy's efforts to control the occupied territory were hindered by the total resistance of the population coordinated by the political and local authorities, from clandestine locations with a strong support given by the mass media that simulated a real informational campaign.[19] Following such a strategy, Yugoslav

military writers sustained that countering such defense strategies with professional enemy forces, by providing at least 8.5 soldiers per square kilometre, or two million men (50 enemy infantry divisions[20]), were required to truly subdue the country.

Conclusions

Synthesizing, hybrid war is a combination of strategy and tactics designed to mix the types of warfare to use tactical success to achieve strategic effects by quickly exploiting the cognitive and moral domains. Hybrid war is not only hybrid in its capabilities and its effects, but more important to understanding and combating it is that hybrid war is hybrid in its theory and logic as well. Aspects of classical theorists such as Clausewitz and Sun Tzu, as well as newer theorists like Mao, and proponents of Unrestricted Warfare and Fourth Generation Warfare can be used to describe hybrid war[21], which shows that this is not absolutely new.

The rise of hybrid warfare does not represent the end of traditional or conventional warfare[22], but it will add more complexity to defense planning in the 21st century. The military forces able to manage any hybrid threats must be built based on a firm professional military education, which should put an accent on the cognitive skills needed to recognize or quickly adapt to the unknown[23]. It will be a necessity to adjust the operational art, having in mind that the center

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HybridWar_0108.pdf, accessed on 28 March 2015.

[18] Law no. 14 on the organization of the defense system of the Socialist Republic of Romania, Official Journal no. 160, 29 December 1972.

[19] Ross Johnson, Total National Defense in Yugoslavia, The Rand Corporation, Santa Monica, Califrnia, December

1971, http"//www.dtuc.mil/dtic/tr/fulltext/u2/742397.pdf, accessed on 9 April 2015.

[20] Petre Opris, "Romania's military doctrine, resembling the Yugoslav one", in *Jurnalul.ro*, 4 September 2009, http://jurnalul.ro/scinteia/special/doctrina-militara-a-romaniei-asemanatoare-cu-cea-a-iugoslaviei-519821.html, accessed on 10 April 2015.

[21] Daniel T. Lasica, Stategic Implications of Hybrid War: A Theory of Victory, Fort Leavenworth, Kansas, 2009, p. 11.

[22] Frank G. Hoffman, "Hybrid Warfare and Challenges", in *Joint Forces Quarterly*, no. 52, 1st quarter 2009, p. 38, http://www.smallwarsjournal.com/documents/jfqhoffman.pdf, accessed on 27 March 2015.

[23] David C. Gompert, Heads We Win: the Cognitive Side of Counterinsurgency (COIN), Santa Monica, CA: Rand, Counterinsurgency Study Occasional Paper 1, 2007.

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of gravity in the new conflicts will stay with our ability to apply the comprehensive approach concept.

The security environment continues to change; it is and will remain complex, global, and subject to unforeseeable developments. The world is a more complex and interconnected place, and this serves only to highlight the need for close cooperation and coordination among international organisations and the requirement for them to play their respective, complementary and interconnected roles in crisis prevention and management. The globalisation of the world through ever more effective means of transport, communication, multilateral agreements and political arrangements has also led to the need to act and react rapidly. Furthermore, new emerging threats will require an alternative inter-agencies approach in order to maintain a relative harmony and stability. Russia's actions in Ukraine potentially signpost new ways of operating to infiltrate influence and achieve effective strategic outcomes; such ways may negate the capabilities held by western militaries and force us to rethink the ways and means of operating at joint, inter-governmental, inter-agencies and multinational level.

This new security environment will have an effect on the approaches of nations to resourcing and modernising their militaries. It is likely that many nations will need to consider how they should fund their contribution to dealing with future threats, being obvious the fact that it is going to be very difficult to sustain all necessary military capabilities after a long period of military systems underfunding.

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Acknowledgements

THE EVOLUTION OF WARFARE FROM CLASSIC TO HYBRID ACTIONS

Cristian BĂHNĂREANU, PhD*

In the classic sense, war meant a number of military campaigns in which at least two parties consisting of large masses of people and fighting equipment were in opposition on issues of sovereignty, territory, resources and power and clashed directly in order to impose will or a certain behavior by force. After the Peace of Westphalia, warfare has passed through several stages of evolution and now we witnesses 4th generation and even 5th generation warfare.

The Revolution in Military Affairs has generated new forms of combat, new weapon systems and equipment, new military techniques and technologies and requires a permanent revaluation of military doctrines and operational concepts.

Although war tended towards a non-violent confrontation, characterized by high-tech and information, between two or more entities in order to meet economic interests, the emergence of hybrid war put back on the agenda the territorial defense and classic action combined with unconventional means and techniques which have a strong psychological impact on the public opinion.

Keywords: *generation of warfare, Revolution in Military Affairs, doctrine, hybrid threat, hybrid war.*

1. Generations of Warfare – Short History

The concept of the *generation of warfare* was introduced and defined in 1989 by US military specialists[1]. Since the Peace of Westphalia there occurred five generations of warfare and now we witness the peak of the 4th generation warfare and the beginning of the 5th generation warfare.

In addition to *classic fighting actions*, usually waged by states, the specific war of the XXIst Century brings more strongly in the light the *asymmetrical, unconventional and hybrid actions*, usually waged by non-state actors.

After the Peace of Westphalia in 1648, the knowledge and conduct of war phenomenon has passed from mass manpower (1stGW) to concentration of firepower (2ndGW), to maneuver warfare (3rdGW), to insurgency and terrorism (4thGW)[2] and, more recently, to non-contact warfare (5thGW).

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[1] William S. Lind, Keith Nightengale, John F. Schmitt, Joseph W. Sutton, Garz I. Wilson, "The Changing Face of War: Into the Fourth Generation", in *Marine Corps Gazette*, Vol. 73, No. 10, October 1989, pp. 22-26.

[2] Stan Anton, "Războiul asimetric sau actualitatea trecutului", in *Buletinul Universităţii Naţionale de Apărare "Carol I"*, nr. 1, 2007, pp. 45-46; Stan Anton, Atypical *conflicts of XXIth century*, lecture at National Military Palace, 13 May 2015.

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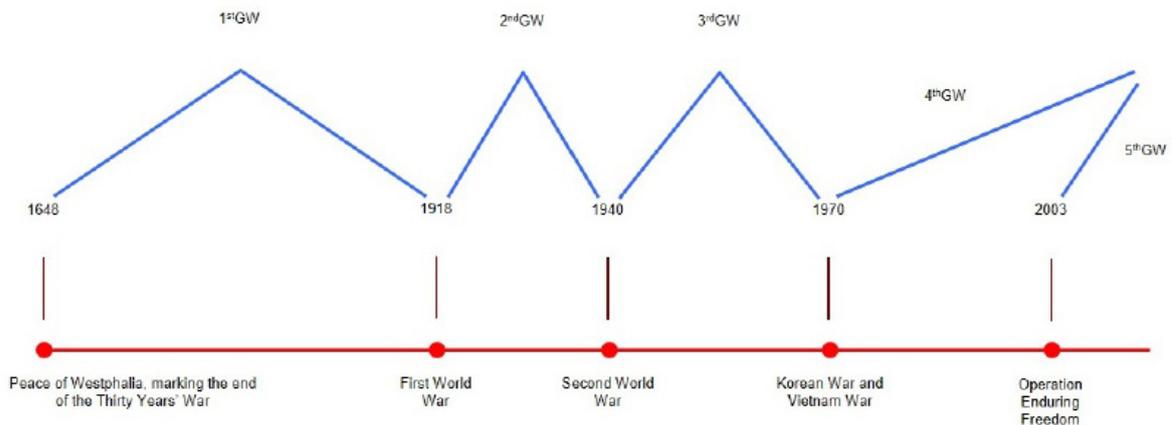
Figure no. 1: The timeline of the five generations of warfare[3]

First Generation Warfare (1stGW)

The 1stGW refers to the early stages of the organized war with armed forces under state control and is defined in terms of "mass warfare" or "line and column warfare". 1stGW peaked in 1914-1918 during the First World War.

The main characteristics of this type of warfare are:

• battles are fought by organized military forces of nation states;

• numerous forces are disposed in fighting lines and columns;

• in the last stage of 1stGW, fighting tools evolved from poor military technology and individual weapons such as sword and shield, bow and arrows, spear and eventually musket to bayonets, hand grenades, machine guns, cannons and artillery.

Second Generation Warfare (2ndGW)

The 2ndGW is defined in terms of "trench warfare" or "linear fire and movement warfare" and corresponds to the industrial age. The 2ndGW developed until the period of the Second World War.

The main characteristics of this type of warfare are:

• battles continue to be fought by organized military forces of nation states;

• war increasingly rely on firepower and maneuver, on coordinated operations of indirect fire to support the advance of the battle lines, and on cavalry maneuvers;

• armored vehicles and airplanes are developing, restating rapid actions in the theater and requiring the motion warfare.

Third Generation Warfare (3rdGW)

The 3rdGW is defined in terms of "maneuver warfare" continuing philosophy of *blitzkrieg* from the Second World War. The 3rdGW developed until the period of the wars in Korea and Vietnam.

The main characteristics of this type of warfare are:

• battles continue to be fought by organized military forces of nation states;

• sea, land and air maneuverability becomes more sophisticated, due to mechanization and new technological capabilities for maneuver: in the maritime environment – ships; in the land environment – tanks, trucks, jeeps, etc.; in the air environment – airplanes, helicopters, jets etc.;

• doctrine evolves to the new tactics such as attacking enemy from the back by bypassing the front line.

Fourth Generation Warfare (4thGW)

The 4thGW is defined in terms of "insurgency warfare", "asymmetric warfare" or even "unconventional warfare" and corresponds to the era of information and high technologies. The

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[3] Adapted from *Boundaries for the Fourth Generation*, 26 December 2006, URL: http://fix4rso.com/category/warfare, accessed on 11 May 2015

most important features of this type of warfare are:

• the decreasing involvement of the nation states and the emergence of non-state actors implies for the first time that a belligerent does not necessarily comprises organized military forces of a state;

• armies become professionalized and eliminate the conscription;

• using of asymmetric tactics, techniques and procedures on long periods of time in order to reduce superiority and strengths of the opponent so that he cannot defeat using traditional or conventional methods and techniques (increasing low-intensity conflicts, insurgency and use of terrorist tactics);

• influencing decision makers in order to change their political attitude to own advantage and destruction of fighting spirit and morale of adverse troops.

Specialists consider that some concepts of the 4thGW may be encountered in the 30s during the civil war in China. The essence of the strategy applied by Mao Zedong was to avoid military engagement while the balance of forces was unfavorable and choose those forms of military actions leading to the erosion of adverse troops. According to some experts[4], the 4thGW is the only kind of warfare in which a major power was defeated: the United States in the Vietnam War and the Soviet Union in the Afghanistan campaign.

Fifth Generation Warfare (5thGW)

Currently, we speak about the 5thGW, what nuances the specific problems of previous generation warfare. In 2007, Thomas X. Hammes forecasts that political, economic and social trends will result in emergence of very strong leaders in small groups coagulating rather to a cause than a nation. In this context, 5thGW will be characterized by the growth of small entities and the expansion of bio-technology.

The 5thGW still lacks a clear definition, but referring to terms such as *unrestricted warfare*, *compound warfare* or *irregular warfare*.

Unrestricted warfare is a type of war in which one part uses all means available – means which involve or not forces and weapons, means which involve or not military power, means which involve or not victims – in order to compel the opponent to serve certain interests[5].

Compound warfare is the simultaneous use of a regular or main force and an irregular or guerrilla force against an enemy. In other words, the military leverage is increased by applying both conventional and unconventional force at the same time[6].

Irregular warfare is a violent struggle among state and non-state actors for legitimacy and influence over the relevant populations. This type of war favors indirect and asymmetric approaches, though it may employ the full range of military and other capabilities, in order to erode an adversary's power, influence, and will[7]. Such modern wars imply the emergence of powerful individuals or groups who have access to latest knowledge, technology and resources to conduct asymmetrical and hybrid actions to promote their own interests.

According to specialists[8], the most important features of 5thGW are:

• it is a war against non-state actors, where the mass and "center of gravity" that can be hit are vanishing;

• it is an extension of asymmetrical and insurgent warfare, whereby the enemy uses all means – both conventional and unconventional military tactics and weapons;

• it includes political, religious and social causes;

• implies spontaneous and anonymous

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[4] Thomas X. Hammes, "War Evolves into the Fourth Generation", in *Contemporary Security Policy*, Vol. 26, No. 2, August 2005.

[5] Thomas X. Hammes, "Fourth Generation Warfare Evolves, Fifth Emerges", in *Military Review*, Vol. LXXXVII, No. 3, May-June 2007.

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attacks from terrorists against random targets (civilians and military personnel) in order to create confusion and fear;

• it incorporates nonlethal actions as global strategic information operations campaigns (through the Internet and 24 hours news cycle);

• it can be conducted by organized or unorganized groups;

• it may be nation state led or non-state state led – to disrupt or defeat opponents superiority in order to achieve their own interests.

This concept is not yet fully developed, but it is obvious that it is a product of new technology, of the contemporary stage of the revolution in military affairs.

2. The Current Revolution in Military Affairs

Thomas J. Welch, Deputy Director of the US Office for the Network Evaluation, opined that "history proves that, from time to time, technological innovation leads to new military organizations, using new operational concepts. We need to study these periods. Operational and organizational changes in the past have led to more effective military capabilities..."[9].

The American concept of *Revolution in Military Affairs (RMA)* appeared in a strategic context marked by a double revolution, the informatics and globalization. "Joint Vision 2010"[10], prepared under the direction of John M. Shalikashvili, emphasizes that *total domination over the entire range of military operations of potential enemies will be carried out through four operational concepts*: *dominant maneuver, precision engagement, full-dimensional protection, and focused logistics*.

By using more advanced technologies and less weapons desired effects can be reached much faster and easier, but the fact that physical presence

of troops and weapons remains a prerequisite for military success is not to be ignored.

The technological revolution emerged a few years ago by high-precision weapons, intelligent munitions, powerful explosives, space programs is consolidate today by the openings generated by computers in collecting and transmitting data and information, communications, nano-technology, bio-technology, energy sources and energy management, new materials and advanced manufacturing techniques, sensors and networks, etc. There is no human activity that is not influenced by these openings underused yet. Thus, there was given the opportunity of combining lethal military products, usually subject to restrictions in non-military environments, with high technologies, which are easily accessible.

The high-tech content and nature of future wars will increase, taking into account the development of high technology, especially information technology and its widespread application in the military field as follows.

• *New forms of struggle* – future armed conflicts will include new forms of military action such as information warfare, the prevalence of air attacks and a significant increase in strikes carried out by air and ground drones, missile defense and more sophisticated forms of electronic warfare with a solid cyber component.

• *Development of weapons systems and other equipment* – the focus will be on developing intelligent digital equipment with new technologies, long-range capabilities and high precision strikes.

• *Structural organization* – the trend is towards joint and combined forces, diversified in terms of capabilities, supple, flexible, rapidly deployable and low in numerical terms. In the command and control field, we will see widespread application of C4I and C4ISR systems keeping administrative levels to a minimum with improved efficiency in decision-making and information.

• *Combat support* – there will be a greater emphasis on the use of modern digitized technical means in order to provide an accurate, rapid, qualitative and timeliness support of combat troops.

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[9] Thomas J. Welch, *"Revolution in Military Affairs: One Perspective?"*, in *Strength Through Cooperation: Military Forces in the Asia-Pacific Region*, Frances Omori and Mary A. Sommerville (eds.), National Defense University Press, Washington D.C., 2000.

[10] Joint Chiefs of Staff, *The Joint Vision 2010*, URL: http://www.dtic.mil/jv2010/jv2010.pdf, accessed on 4 May 2015.

In our opinion, the development of information technology is the catalyst of the current RMA, because information superiority gives significant competitive advantages. Information warfare and information operations have become a crucial element of military and non-military conflicts. The future conflicts will be to fight for information, with information and against hostile information systems while own systems are protected.

The addition of specific information technology in current RMA enables networking and integration of all systems (weapons, sensors, command and control), in essence the informational integration of war means. RMA becomes a revolution in warfare if the informational integration implies changing the balance between attack and defense, maneuver and fire, space and time[11].

RMA is based on the development of military equipment and technology, which accelerated in the last decade. This emerging revolution is closely linked to general social changes, especially information and technology. Military capabilities turns because the main trends of evolution in different areas: awareness and connectivity, coverage and strength, precision and miniaturization, speed and undetectability, automation and simulation. The transition to future war will be based on four strategic oppositions: between anti-access capabilities or zonal interdiction and new forms of forces projection; between hide and detection technologies; between invisible attack capabilities and air defense missiles; between informational/biological attack and defense[12]. Thereby, the threat of anti-access strategy will strongly increase in the next twenty years, the ability to identify enemy forces will develop leading to new hiding techniques, the information warfare capabilities will become more valuable because of increasing importance of information infrastructures, and the progress in molecular biology will foster offensive, not defensive. Finally, the advances in quantum technology could generate major changes in information processing and encryption or use of sensors.

Two and a half decades ago, the US military experts[13] identified four areas of the new war tendencies that still retain their topicality and continue to be developed and refined.

• *Long-range precision strike* is the ability to locate important and/or mobile targets, to destroy them and to carry out the operation on time and with minimal losses. Such systems based on precision strike still appeared in the 70s and continues to develop rapidly.

• *Dominant maneuver* refers to the positioning of forces – combined with precision strike, space warfare and information warfare – in order to attack decisively, to defeat the "center of gravity" of the enemy (command, organization, resources, transportation, etc.) and to achieve the campaign or war objectives.

• *Information warfare* is defined as another area of the new war, concerning the imposition of political will by creating an impenetrable, active and offensive information system, able to ensure an ongoing information dominance[14] and involves gathering tactical information, ensuring the validity of information, using of propaganda and disinformation to demoralize or manipulate the enemy and the public, undermining the quality of information of the adverse party and preventing gather information by it. Data collection systems – such as reconnaissance systems and early warning satellites –, various (un)piloted air systems and other modern systems provide a large amount of data that can be sorted and channeled to advanced information dissemination. Information warfare goes beyond the line between conventional and unconventional, taking into account that troops,

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[11] Teodor Frunzeti, "Changes in the space-time dimension of military actions in a globalized society", , in *Strategic Impact*, no. 2, 2010, p. 37.
[12] Cristian Băhnăreanu, Răzvan Beschea, "Revoluţia în domeniul militar", in *Lumea 2011. Enciclopedie politică şi militară (Studii strategice şi de securitate)*, Teodor Frunzeti, Vladimir Zodian (coord.), Editura CTEA, Bucureşti, 2011, pp. 595-611.

[13] Jeffrey Mckitrick, James Blackwell, Fred Littlepage, George Kraus, Richard Blanchfield, Dale Hill, "The Revolution in Military Affairs", in *Battlefield of the Future: 21st Century Warfare Issues*, Barry R. Schneider and Lawrence E. GRINTER (eds.), Air War College: Studies in National Security No. 3, Revised Edition, Air University Press, September 1998, pp. 65-97.

[14] Teodor Frunzeti, "Conventional and unconventional in military actions", in *Strategic Impact*, no. 4, 2012, p. 11.

tanks, airplanes, submarines, missiles and other conventional weapons are replaced with digital binary code resulting a digitization of battlefield.

• *Space warfare* is about the military importance of the space in the context of space systems integration in military operations. The utility of space systems for communications is well known, but their use for surveillance, reconnaissance and real-time strike is more recent. Also, these systems provide accurate navigation and supply of meteorological data. In the future space transport systems, anti-satellite weapons, defensive missiles and even space systems for land attack could play a leading role in conduct the military operations.

Therefore, the landmarks of the current RMA are: observation (ability to detect accurately, in real time, of everything happening in theater by satellites and terrestrial radars), firepower (guided and cruise missiles, drones, ballistic systems), protection (anti-aircraft and anti-missile weapons, cyber defense), C3 – command, control, communications (facilitating cooperation and exchange at all levels and in real time of the information required for the conduct of fight).

It is not difficult to conclude that these means makes the military and non-military actions can be conducted simultaneously, without direct contact between opponents.

However, most experts agree that only technological innovation is insufficient to trigger a real revolution in military affairs. Along with the development of military technology, the revaluation of doctrines and operational concept is also required.

3. Hybrid Warfare between Doctrine and Revolution in Military Affairs

Carl von Clausewitz believes that every age has its own type of war, its own limitations and perceptions[15] and, therefore, the conflicts and wars for each era should be analyzed in terms of its features.

The current RMA aimed mainly three aspects: technological (integration of new

information technologies in existing weapon systems and integration of C4ISR); doctrinal and operational (experimentation of technology and implementation of its effects in concepts, theories, and actions); organizational (forces deployment, joint and multinational interoperability, civil-military integration, mobility, modularity, decentralization, etc.). The synergy of these elements defines a new manner of conduct of war, ensuring the originator a considerable advantage over its potential enemies.

Changes tend to occur both in the manner of war conduct and the means with which it is worn. The manner of conduct relates to issues such as: who participates, what doctrine is used, what type of campaign and under what strategic concept. The features of war is changing as composition of military is changing, because there are significant differences between a tribal force, local or territorial militia, regular army, mercenaries, guerrilla force, regular forces without insignia, terrorist network or a strong leader. Each one conducts war in a different manner. A regular force which has to deal with guerilla actions will have difficulties that they wouldn't have if they faced a regular army. All this issues produce changes in the general characteristics of war.

Although it is not yet fully accepted by military planners because it is a non-doctrinal term, *hybrid warfare* best reflects these changes given that state and non-state actors engaged in this form of conflict exploit all modes – conventional, irregular, terrorist, disruptive, or criminal – to destabilize an existing order[16]. As we can see in Figure no. 2, this type of warfare involves the combination and use of multiple conventional and unconventional tools which are specific to latest generations of war (4thGW and 5thGW).

Supporters of the hybrid warfare concept are using the term to describe the area where regular warfare and irregular warfare intersect and combine, creating a new form of war[17]. The specific components, tactics, techniques and

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[15] Carl von Clawsewitz, *On War,* Princeton University Press, Reprint Edition, New Jersey, 1989, p. 593.

[16] Frank G. Hoffman, "Wars Like No Other" briefing slides, Carlisle Barracks, PA, U.S. Army War College, 21 April 2008, apud Steven C. Williamson, *From fourth generation warfare to hybrid war*, USAWC Strategy Research Project, 26 March 2009.

[17] Frank G. Hoffman, *Conflict in the 21st Century: The Rise of Hybrid Wars*, Potomac Institute for Policy Studies, Arlington, Virginia, December 2007, p. 5.

procedures of both sides of the war converge on a new kind of threat, the hybrid one. According to Hofmann, hybrid threats may incorporate a full range of different modes of warfare, including conventional capabilities, irregular tactics and formations, terrorist acts, including indiscriminate violence and coercion, and criminal disorder[18].

Opponents believe that this type of war is not new, but its tools are more sophisticated and destructive, requiring a response of the same nature. Experts, like Huber, Murray and Knox[19] consider that hybrid warfare is nothing else but a manifestation of a type of conflict that occurred periodically in history, the only differences being that it does not require two distinct forces,

one of military action because it combines conventional warfare with the irregular warfare and cyber warfare. Moreover, hybrid warfare is a combination of symmetrical and asymmetrical war in which intervening forces conduct traditional military operations against enemy military forces and targets while they must simultaneously – and more decisively – attempt to achieve control of the combat zone's indigenous populations by securing and stabilizing them (stability operations)[21]. Therefore, hybrid actions will be a simultaneously mixture of all types of war (conventional, asymmetric, terrorist) and corresponding tactics[22].

We believe that it is important to consider
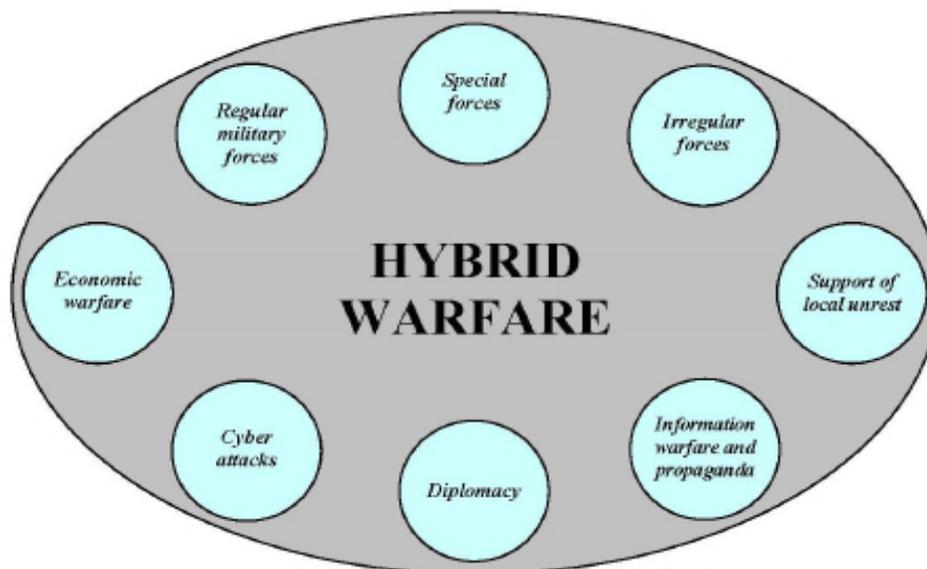
Figure no. 2: The tools used in hybrid warfare[20]

conventional and unconventional, and does not imply two types of war, regular and irregular, but an effective combination of tactics specific to both types of war.

Hybrid warfare is the most obvious example for the impossibility to clearly delimit the conventional dimension by unconventional

if hybrid warfare can be mentioned in the 4th or 5th generation warfare. Through various tactics, techniques and procedures that could be used, as can be seen in Figure no. 2, we could say that it is a 4th generation warfare. But this statement can be misleading, since the 4th generation warfare is a return to warfare before nation-states existed[23], when the various religious, cultural and racial entities concentrate on promoting a persuasive message, rather than on destroying the material

[18] Idem, p. 8.

[19] Thomas M. Huber (general editor), *op. cit.*, 2002 and MacGregor KNOX, Williamson MURRAY (eds.), *The Dynamics of Military Revolution 1300-2050*, Cambridge University Press, 2001.

[20] Munich Security Conference, *Munich Security Report 2015: Collapse in Order, Reluctant Guardians?*, 2015, p. 35, URL: http://www.eventanizer.com/MSC2015/MunichSecurityReport2015.pdf, accessed on 21 May 2015.

[21] John J. McCuen, "Hybrid Wars", in *Military Review*, Vol. LXXXVIII, No. 2, March-April 2008, p. 108.

[22] Frank G. Hoffman, "Hybrid Warfare and Challenges", in *Joint Force Quarterly*, Issue 52, 1st Quarter 2009, p. 35.

[23] William S. Lind, "Understanding Fourth Generation Warfare*"*, in *Military Review*, Vol. LXXXIV, No. 5, September-October 2004, p. 13.

power of their enemy. In other words, 4th GW practitioners choose targets with a moral and psychological impact on the political will of their enemies in order to induce them to give up their strategic objectives. In contrast, hybrid warfare means a convergence of categories, a blurring of neat distinctions between conventional and irregular, combat actions and nation-building, terrorism and sabotages[24]. Moreover, state and non-state actors who share the same strategic interests can undertake hybrid actions and a war against them will become extremely complex and difficult to solve.

Another issue is that the hybrid warfare is a result of current Revolution in Military Affairs. As demonstrated in his paper[25], Thomas Bjerregaard believes that the tactics used by Hezbollah in the Lebanon war (2006) are compatible with hybrid warfare, but have little to do with RMA. The fighting carried near protected civilian infrastructure, such as churches, hospitals and schools, unable Israelis to unlimited use of power. This way of denying the enemy which is advantaged by capacity to adapt tactically is not new and is not a result of RMA. Rather, it is a natural asymmetric response of the weakest which seeks and uses any tactics to counter the firepower of a more powerful force. Fighting principles of Hezbollah showed a remarkable awareness of the limits of their capabilities and weaknesses of Israeli force, ensuring that any crimes or human rights violations will be perceived as a result of Israeli actions. We can say that the Hezbollah doctrine is based on specific theories and lessons learned specific to guerilla warfare and irregular warfare.

Hezbollah disturbed the balance of power through the establishment of small tactical units, equipped with modern missile systems capable of coping with threats by land, air and water. However, none of the weapons systems used by this Islamist organization was new, the novelty being that Hezbollah had never carried them

before. Although it is specific to hybrid warfare to some extent, the introduction of new weapon systems, which change the balance of power or deny one party the benefit from past conflicts, it is not sufficient to say that hybrid warfare is a result of RMA.

In 2014, the term "hybrid warfare" has come to the forefront with "green men" actions in Ukraine and continues to be studied and analyzed by military and civilian experts. It still has many unknown aspects, but will undoubtedly lead to a revaluation of doctrines and operational concepts as doctrine is an essential element both in terms of planning and execution of military operations. Already, the Joint Committee of Chiefs recognizes in the new U.S. Military Strategy[26] the existence of hybrid conflicts that combines conventional and irregular forces to create ambiguity, seize the initiative and paralyze the adversary and may include use of both traditional military and asymmetric systems. This type of conflict is likely to persist well into the future, as it ensures certain advantages to adversary by complicating the process of decision-making and slowing the coordination of effective response.

Doctrine is a vital and indispensable tool for nations and armed forces around the world, which provides guidance on conduct of war and how and when military force is used and for what purpose. Warfare tools, especially technological advances, definitely depend by doctrine. As noted above, an actor may have the most advanced technology in the world, but do not get the victory because of failure to use effective and in time this advantage. But the doctrine can be decisive in a situation where parties have similar technology.

Doctrine is a set of "fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application"[27]. It is directly linked to the type of force that carrying the war. For

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[24] Chong Shi Hao, "A Swift and Decisive Victory: The Strategic Implications of What Victory Means", in *PRISM*, Vol. 4, No. 4, 2014, p. 106.

[25] Thomas Bjerregaard, *Hybrid Warfare: A Military Revolution or Revolution in Military Affairs?*, Master's Thesis, Fort Leavenworth, Kansas, February 2012, pp. 67-69.

[26] Joint Chiefs of Staff, *The National Military Strategy of the United States of America*, June 2015, p. 4.

[27] U.S. Department of Defense, *Joint Publication 1-02: Department of Defense Dictionary of Military and Associated Terms*, 8 November 2010 (as amended through 15 March 2015), p. 71.

example, the military theory on how the regular forces should fight is very different from that on the guerrillas. The doctrine reflects the resources available and the most expected situations that might confront that force. It changes to reflect the change of circumstances, for example some older or newer tactics, techniques and procedures which are specific hybrid warfare.

Conclusions

The characteristic wars of the current era are highly technological and digitized, which is specific to the 4thGW and the beginning of the 5thGW. Basically, alongside classical combat actions carried by states or in combination with these actions there are manifested more strongly asymmetrical, irregular and hybrid actions carried by non-state actors. New types of war, as "insurgency warfare", "asymmetric warfare", "unrestricted warfare", "irregular warfare" or "hybrid warfare", continued to develop the tactics, techniques and procedures of previous generations warfare.

The contemporary phase of Revolution in Military Affairs has led to the development of more effective military capabilities, which combined with high technologies ensures much faster and easier the objectives achievement. Information technology is the engine of the current RMA, information warfare and information actions are a mandatory step to conduct any type of modern conflict. Also, the informational integration of war tools ensures major advantages in at least four areas: observation, firepower, protection, C3 – command, control and communications.

The current RMA aim mainly three areas – technological, doctrinal and operational, organizational – those synergy defining a new way in conduct the war. One example is hybrid warfare. Although it is not new in the evolution of war, the hybrid actions reveals a new way of combining and using of conventional and unconventional tactics and tools specific to the latest generations warfare.

Hybrid warfare is still not fully accepted by military experts because is a non-doctrinal term.

It still has many unknown aspects, which have to be further studied and analyzed.

There is no doubt that this type of warfare and all that it implies will quickly lead to the revaluation of the current doctrine and operational concepts, so that nations and their armed forces to be prepared to counteract and respond effectively to hybrid tactics, techniques and procedures.

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METHODOLOGICAL NORMATIVITY IN INTELLIGENCE AND SOCIAL RESEARCH

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This article approaches intelligence activity from the point of view of the norms regulating sociological research, based on the premise that the main concern of both sociology and intelligence is to investigate the social aspect and find ways of interacting with it.

Discussing intelligence work within the theoretical and methodological framework specific to sociological research offers intelligence professionals a complete and objective view of the threats/risks to national security and also the possibility of constantly improving the quality of products they put together for strategic decision makers.

While intelligence work cannot be reduced to the methodologies of social sciences, these methodologies contribute significantly to the scientific truth contained by intelligence products. This aspect changes the focus/core of intelligence work from the "art of collecting" to the "science of analysis" and gives substance to the role that scientific research methods could play in increasing the quality of intelligence products.

Keywords: methodological normativity, epistemology, sociology, intelligence, analysis, collection, dissemination.

Introduction

Initially, the idea of approaching intelligence work as social and behavioral science research appeared as a necessity imposed by the unstable and highly complex environment that emerged after the outbreak of WWII. This environment showed how insufficient and inefficient was the traditional view of intelligence operations, which held that "a secret service discovers a secret plan belonging to the enemy and reveals it to the sovereign in order to help him win the battle"[1]

The change of intelligence focus from confidentiality/secrecy (the traditional view) to information analysis, correlation and integration in order to obtain accurate and comprehensive descriptions of national security threats/risks was intensely promoted by *Sherman Kent,* the man who would later be called "the father of intelligence analysis". A former officer with the Office of Strategic Services (OSS) and later head of CIA's Office for National Estimates, Kent wrote in *Strategic Intelligence for American World Policy*: "We [...] think that research is the only process that leads to truth or brings us as close to it as possible. We insist [...] on the fact that truth must be obtained through research based on a systematic method. Such a method exists in the field of social sciences and it broadly represents the essence of strategic intelligence work. This method resembles that of natural sciences. It's not the same thing, but it certainly is a possible method*"[2].*

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[1] William E. Colby, *Intelligence in the 1980s*, The Information Society no.1, 1981, p. 65.

[2] Sherman Kent, *Strategic Intelligence for American World Policy*, Princeton University Press, Princeton M.J., 1966, p. 155.

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This approach to intelligence was later developed in various forms, including the vision of CIA's tenth director, William E. Colby, who declared intelligence work to be the equivalent of a universal and anticipatory social science: "this discipline will go further than scientific analysis, through the application of techniques forecasting probable events, instead of explaining past events. The experiments specific to this new discipline are not limited to the intelligence community, but take place in intelligence science research centers, among the analysts who evaluate political risks [...]".[3]

The decision to resort to a method, so obvious in the works of both Kent and Colby, demanded at first an epistemology equivalent/similar to that used by the social sciences in general and sociology in particular. Later, an epistemology specific to intelligence work could emerge, focusing on anticipatory techniques.

The role of methodological evaluation is not, however, limited to finding the best method of studying a social phenomenon. The researcher must also have in mind the *methodological normativity* aspect, which can be defined as a set of good research rules or, to put it differently, a list of problems that must be solved.

Methodological normativity has its own literature, which describes multiple approaches to the structure and stages of sociological research, from simple models of the *preparation-implementation-completion* type, to more and more detailed statements that are often determined by the tools chosen for the inquiry.

In order to be as comprehensive as possible, we chose the system of sociological research based on significant activities developed by prof. Ioan Mărginean[4]. This system contains no less than 43 stages which, for pragmatic reasons, we have grouped into 12 stages that lend themselves to the task of drawing comparisons between sociology and intelligence:

1. setting the theme and identifying the scope of research;

2. preliminary documentation and setting research targets;

3. developing the theoretical framework, determining the hypotheses and defining the analysis and recording units;

4. selecting the type of research, specifying the target units (population), building variables and preparing the measuring process (quantification, wherever possible);

5. choosing the work methods, techniques, and procedures, as well as the data collection tools; pilot research, locking in and multiplying the research instructions;

6. organizing data collection and the research team (including the selection and training of assistants); identifying the target units (people) and applying the research tools;

7. data collection control and verifying the resulting information;

8. the mock-up and the data processing method, codifying and storing data, writing the variables catalog and processing them;

9. data analysis (verifying the hypotheses) and interpreting the results (theorizing); formulating proposals for solving the problems that the research effort had focused on;

10. writing, discussing and finishing the research report;

11. disseminating the results and archiving the data;

12. discussing and implementing solutions, evaluating their implementation.

Before approaching these stages from the double point of view of sociology and intelligence, we must show that some stages may not be necessary, depending on the object of research. And, of course, the order of stages is determined by the investigations and their logic. As Ioan Mărginean himself noted, "the researcher must have in mind at all times the complete research strategy and the exact moment when any given stage must end"[5].

1. Setting the theme and identifying the scope of research

In sociological research, as well as in scientific research in general, themes can be set by two factors:

- the researcher/institution's interest in solving a scientific problem, which could be seen

[3] Acc. to Abram N. Shulsky; Gary J Schmidt, *Războiul tăcut – Introducere în universul informaţiilor secrete*, Editura Polirom, Iaşi, 2008, p. 245.

[4] Ioan Mărginean, *Proiectarea cercetării sociologice*, Editura Polirom, Iaşi, 2000.

[5] *Ibidem.*

as *fundamental research*;

- an order placed by a beneficiary (client) looking for solutions to problems in his field.

In both situations, sociological research focuses on solving a *social problem*, which is broadly defined as a social phenomenon that affects a certain collective, is undesirable and demands social action[6].

One can easily see that the definition of the *social problem* forces the researcher to define adequately the human collectives/groups that will be the focus of research. On the other hand, when sociological research is undertaken at the request of a beneficiary, it is the client who determines both the scope and the theme of research.

The sources of intelligence *investigation*[7] themes are similar, even largely identical, with those of sociological research. Themes can be set by intelligence analysts or the managers/ planning structures of intelligence services based on the vulnerabilities, risks and threats to national security identified during the interpretation of available data or, more frequently, at the request of the legally-appointed beneficiaries of intelligence products.

We thus find a direct correspondence between the scientific researcher and intelligence analyst, as well as between the client of sociological research and the legally-appointed beneficiary of intelligence products. At the same time, it's readily apparent that the main object of study for intelligence services is all the data regarding *social problems*, more specifically defined as "the relevant information for formulating and implementing a government policy aimed at promoting the national security interests and preventing threats from existing or potential opponents"[8].

Even a reader less familiar with the activity of intelligence services can see that the first stage

of sociological research is largely synonymous with the first stage of the intelligence cycle: *the request for information*[9].

2. Preliminary documentation and setting research targets

The preliminary documentation stage is a point where the researcher can draw upon three separate sources of information: people, social reality and social documents. The purpose of this stage is to concentrate the available knowledge about the selected/requested theme and use it as the basis of a decision as to whether the theme should be pursued/accepted, abandoned or, possibly, reformulated.

In intelligence work, the request for information (which corresponds to the theme of sociological research) could be a relatively simple/concrete one, which would allow an immediate reply, but also a complex or ambiguously formulated one, which would require a sustained effort on the part of the intelligence structure, including the comparing, evaluation and integration of existing information etc.

This situation requires a *preliminary analysis* stage, whose goals resemble those set for the preliminary documentation phase of sociological research. It is at this stage that the operational and general goals of future activity (investigation) are formulated.

3. Developing the theoretical framework, determining the hypotheses and defining the analysis and recording units

At this stage, the researcher actively intervenes to define the social problem or phenomenon that is to be investigated and to put forward an explanatory theory. The researcher will obviously have to take into account all the existing and relevant data and information regarding the research theme, to develop one or more working hypotheses and, based on this, to select/identify those aspects that require new clarification/ confirmation. All these aspects, referred to as

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[6] R.B. Horton, G.R. Leotic, *Sociology of Social Problems*, New York, Appleton-Century-Crofts, 1955, p. 3.

[7] Henceforth, I will use this generic term to describe mainly that part of intelligence work that has been and will certainly remain confidential (secret).

[8] Abram N. Shulsky; Gary J. Schmidt, *Războiul tăcut - Introducere în universul informaţiilor secrete*, Editura Polirom, Iaşi, 2008, p. 23.

[9] Acc. to Gheorghe Savu, Adrian Pârlog, *Producţia de intelligence*, Editura Medro, Bucureşti, 2008, p. 37.

the theoretical framework of research, guide and help the sociologist in the attempt to adequately/effectively determine the analysis and recording units, meaning the social groups that are the object of study and which, according to the collected data and information, are relevant for the research theme.

In the intelligence cycle, these activities are included in the stage called *initial analysis*[10], which plays a crucial role in defining the subsequent data and information collection stages in order to address with maximum effectiveness the analyst's needs for documentation and, in certain cases, even those of the beneficiary/client.

The openness/transparency which intelligence services have been showing lately and the growing movement toward *scientization* in this field has revealed that the data and information collection process is actually guided by the analysts, as they formulate the need for additional information in order to satisfy the beneficiaries' requests as objectively and exhaustively as possible.

4. Selecting the type of research, specifying the target units (population), building variables and preparing the measuring process (quantification, wherever possible)

Extremely complex from the point of view of the activities involved, this stage is where the theoretical/conceptual elements of the research process are *translated* into signs/indicators or concrete information that needs to be collected in the field. In other words, this stage is the jump from the theoretical to the empirical, which makes it a genuine theoretical-methodological construct.

In intelligence work, this stage is the point where intelligence services decide how to use the forces and means at their disposal, while also being a crucial moment for determining the *degree of objectification* of the results expected from the social reality under investigation.

The activity required by this phase is purely managerial and its purpose is to "synchronize" the need for information requested mainly by the analysts (*theorists*) with the collection possibilities of the collectors (*empiricists*). This

process grows in complexity as the target of the intelligence effort is more general/broad from the point of view of both the area involved and the forms in which information manifests itself.

The question faced by the managers of intelligence work was perfectly described from the sociological researcher's point of view by P. Lazarsfeld, who, as professor Ioan Mărginean showed, spoke of "a process of moving from concepts to empirical dimensions, indicators and signs [...] a process that can be described as "operationalization of concepts"[11]

5. Choosing the work methods, techniques and procedures, as well as the data collection tools; pilot research, locking in and multiplying the research instructions

Without going into too much detail about the methodological elements of sociological research, it is useful to point out the main stages that the researcher must follow when selecting the methods, techniques and procedures:

a) ensuring that methods, techniques and procedures are adequate for the research goals;

b) selecting complementary methods, techniques and procedures;

c) the availability of documentation sources;

d) securing the required resources (personnel, equipment, technology, etc.).

The intelligence specialist can identify in this stage a number of similarities with the preliminary stage of the data an information collection activity, the stage where the analysts' data requests are translated into instructions that the data and information collection divisions (HUMINT[12], SIGINT[13], IMINT[14]) can act upon.

Depending on the complexity of the intelligence request/theme, the collection activity can involve one or more specialized data and information collection divisions, whether

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[10] Gheorghe Savu, Adrian Pârlog, *Producţia de intelligence*, Editura Medro, Bucureşti, 2008, p. 37.

[11] Ioan Mărginean, *Proiectarea cercetării sociologice*, Editura Polirom, Iaşi, 2000, p. 123.

[12] Human Intelligence – Information obtained from human sources.

[13] Signal Intelligence – Information obtained from radio-electronic sources.

[14] Imagery Intelligence – Information obtained from images.

independently or together with other structures of the intelligence system/service, each of them using in most cases their own methods, techniques and procedures.

6. Organizing data collection and the research team (including the selection and training of assistants); identifying the target units (people) and applying the research tools

In order to stay as close as possible to the list of sociological research stages drawn by professor Ioan Mărginean, I think we can synthetically designate this stage as *research planning*. The researcher/research institution drafts a data and information collection program/plan based on the available resources and the selected methodologies, featuring detailed indications regarding the allocation of tasks, deadlines and the methods of handling related activities, such as means of communication between the personnel involved, the operators' room and board, gaining access to various environments etc.

This stage is also used to define the units (persons) to be studied, which involves the geographical definition of the addresses/environments where data and information will be collected from: persons, organizations/institutions, administration divisions etc.

The collection planning stage plays the same role in sociological research and intelligence work and it is crucially important for the effectiveness of the available forces and means, as well as and especially for the final product's quality and exhaustiveness. *The Collection Plan* ensures the concentration of intelligence efforts and resources for the purpose of operational activities in order to obtain data and information that are relevant and timely for effective decision making and for avoiding a strategic surprise.

Since intelligence work is associated with the social side of secret operations, the planning stage is also important for clarifying/solving the legal, moral and responsibility aspects involved, which are essential elements of the data and information collection process.

7. Data collection control and verifying the resulting information

The name of this stage itself indicates that it belongs to both sociological research and intelligence work. The main purpose of controlling the collection process is to provide constant feedback to the operations' managers regarding the implementation of the collection plan, the effectiveness of the collection measures/methods used in the field and the possibility of identifying the measures needed to optimize the processes in order to maximize the results.

In order to reach the designated goals, a rigorous verification of the collected information must be conducted in parallel, or even intrinsically, with the collection process.

Information is both the raw material of intelligence services and a result of the transformation processes and, therefore, it is vital to identify and implement verification/estimation methods. This imperative is also the result of the need to limit the volume of information to a level that would allow the understanding of the processes under study without overloading the process of analysis.

8. The mock-up and the data processing method, codifying and storing data, writing the variables catalog and processing them

Intimately tied to the research goals and the working hypotheses, this stage is largely characteristic to quantitative analysis methods, which involve the statistical exploitation of a large volume of data and information.

For this reason, it is defined and applied in a different manner in intelligence work, which tends to focus on qualitative analysis.

In certain situations that can appear in both sociological research and intelligence work, the exhaustive processing of collected data and information is impossible in practice, which is why the attempts to build complex and detailed mock-ups are usually far too expensive and their results are not particularly useful.

Reality has shown that experience in the field of the investigated event/phenomenon is much more important for the final product, especially

in the case of intelligence analysts, than the mock-up (if one was used) or the codification of information (meaning the transformation of verbal, qualitative descriptions, into quantitative descriptions that are assigned various values and symbols).

The data storage and processing sequences of sociological research are almost completely identical with those used in intelligence work.

The large volume of date and information stored by the intelligence services forces them to develop their own storage systems that allow the swift retrieval of relevant information for intelligence analyses.

9. Data analysis (verifying the hypotheses) and interpreting the results (theorizing); formulating proposals for solving the problems that the research effort had focused on

Data analysis is a central/defining stage of sociological research. Not by accident, it also bears the name of hypothesis verification, since hypotheses play a crucial role in designing the research and especially in interpreting the collected data and information.

A hypothesis is basically a form of scientific thinking that allows the scientist to use the facts to understand the laws that cause them or, in other words, "it constitutes a plausible explanation that will be verified using the observed facts"[15].

The purpose/end of the entire analytical effort made by the researcher regarding the hypotheses is to come up with theoretical explanations (theorize) that must fulfil three requirements in order to be correct:

    - be the result of scientific investigation;

    - be a generalization of results obtained through empirical research;

    - represent a concrete particular condition confirmed by field investigation and/or other social actions[16].

Intelligence analysis is not easy to define,

given the semantic diversity characterizing this concept and the distinction that intelligence literature makes between solving public and secret problems. This aspect was well underscored by the arguments brought by Ronald Garst, who noted that intelligence analysis is more time-sensitive than any other analysis and it also runs the risk of deliberate disinformation[17].

For the purposes of this paper analysis can be defined as "a specialized action for acquiring knowledge, autonomous among the epistemic concerns, recognizable in the most diverse fields (military, socio-political, economic, financial etc.)"[18] or, from a methodological point of view, "a series of scientific methods and techniques used to evaluate knowledge sequences/elements in a certain field"[19].

It is obvious how the two definitions put forward reveal the scientific character of analysis activities, both as a process and as a group of specific techniques.

Intelligence analysis activities are strongly influenced by the huge amount of data that needs to be processed, their nature and that fact that "the validity of data is always in doubt"[20].

Intelligence analysis is a dynamic process, frequently iterative, whose goal is the same as that of sociological research: examining competing hypotheses and developing an understanding of a complex aspect. The intelligence analyst plays a similar role to the sociological researcher, since his task is to criticize and to "take apart and synthesize the corrected evidence, ca*refully evaluate the data and present a series of conclusions by exercising his judgment"[21]*. In

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[15] Septimiu Chelcea, *Metodologia cercetării sociologice-metode cantitative şi calitative*, Editura Economică, Bucureşti, 2004, p. 99.

[16] *Ibidem*, p.114.

[17] Ronald Garst, *Fundamentals of Intelligence Analysis, Handbook of Intelligence Analysis*, Second edition, Defence Intelligence College, Wasington D.C., 1989, p. 67.

[18] Marin Ioniţă, *Încadrarea conceptuală a activităţii de informaţii. Informaţia de securitate naţională*, coordonator Niţu Ionel, *Ghidului analistului de intelligence*, Editura Academiei Naţionale de Informaţii "*Mihai Viteazul*", Bucureşti, 2011, p. 16.

[19] Ibidem, p. 19.

[20] Rob Johnston, *Developing a Taxonomy of Intelligence Analysis Variables*, http://www.cia.gov/csi/studies/vol 47 9 3/index.html, accessed on April 12, 2015.

[21] Lisa Krizan, *Intelligence Essentials for Everyone*, Joint Military Intelligence college, Wasington D.C., 1999, p. 20.

order to fulfill this role, "the intelligence analyst has three goals: know everything, be believed and exert positive influence on the collection and use of information"[22].

The objectivation of these goals shows that they are fundamentally ideals that can never be put into practice. Sherman Kent defined them in such a manner as to focus the analysts' efforts and to marshal their resources, instead of setting "*standards*" and underlining the determinant role they play in the process of supporting decision-making. The value of intelligence analysis resides precisely in the usefulness of the final product to the strategic decision-makers, just as applied social research is validated by the effectiveness of the solutions proposed for the "*social problem*" in question.

10. Writing, discussing and finishing the research report

The research report represents in most cases the final product of the research activity and the methods by which the results are communicated to the interested parties (the public, the scientific community, various organizations etc.).

The intelligence equivalent of the research report is the intelligence product. An assessment of the framework on which research reports and intelligence products are built shows that both contain:
- an adequate description of the situation;
- analyzing and interpreting the data;
- describing the phenomenon;
- proposals for solving the social problem or, in the case of intelligence work, to solve/lower/manage the risks, threats and vulnerabilities to national security.

The last stage of the research report/intelligence product reveals the praxeological dimension of this activity and the role that its beneficiaries have in determining the final shape of the reports/products.

The interaction between researchers/intelligence analysts and the beneficiaries of their products is very important for both the accurate calibration of the content, depending on the consumers' requirements and even cognitive skills, and the proper understanding by the consumers of the way the collected data had been correlated/analyzed with the purpose of avoiding any interpretation errors.

11. Disseminating the results and archiving the data

Dissemination is an intrinsic part of what can be referred to as the purpose of research/information in both sociological research and intelligence.

Disseminating the results of sociological research is a duty to the public, first and foremost, and the clients, but also to the other actors involved in the research process. There are, however, situations in which results can be published only in part or through "synthetic" means, which are determined by the need to protect the interests of those who had financed the research.

This aspect appears much more frequently and is more specific to the intelligence services that operate with secret data and information and legally-appointed beneficiaries. In this situation, dissemination is governed by the *need to know* principle, the correct application of which limits the risk of unauthorized dissemination or divulgation of classified information.

Relatively recent studies show that a too narrow application of this principle could lower the significance/relevance of intelligence to its beneficiaries[23].

Completing and updating one's own databases is a function related to the dissemination/information process for both social research structures and intelligence services. In both cases, capitalizing on the acquired knowledge plays a very important role in identifying future research targets/need for information.

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[22] Sherman Kent, acc. coordinator Niţu Ionel, *Ghidului analistului de intelligence*, Ed itura Academiei Naţionale de Informaţii "*Mihai Viteazul*", Bucureşti, 2011, p. 5.

[23] Michael Flynn; Matt Pottinger; Paul Batchelor, *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan*, Center for a New American Security, Washington D.C., 2010.

12. Discussing and implementing solutions, evaluating their implementation

This stage is especially obvious in the case of applied sociological research commissioned by a client, but it should not be neglected in the case of theoretical research or research conducted at the researcher's initiative (the research institute).

The applied aspect of social research imperatively demands constant communication between the researcher and the client in order to keep research in line with the beneficiary's requests and also to select the most effective solutions from the point of view of both operational purposes/targets and available resources (human, material, financial etc.).

In intelligence work, informing the legally-appointed beneficiaries requires constant communication with the intelligence structure in order to satisfy the need for information that can be used to make rational and effective decisions in the users' areas of responsibility.

A constant reaction from the beneficiaries of national security information who assess, confirm or reject the intelligence product and even evaluate it from the point of view of its usefulness, is essential for making the intelligence service/analyst aware of the decision-maker's actual needs and this very feedback frequently triggers a new cycle of information acquisition resulting in a new information document.

Conclusions

The comparative analysis of sociological research and intelligence work from a normative-methodological point of view shows a large number of similar traits that justify a scientific approach to intelligence in general and a sociological perspective in particular.

Naturally, it can be said that intelligence work cannot be reduced to the methodologies used by social sciences, but these methodologies contribute significantly to the scientific truth value of intelligence products. To put it differently, "some of these data can be obtained through clandestine means, but most of them should be obtained through direct observation and research"[24]. This point of view changes the focus/core of intelligence work from the "art of collection" to "science of analysis" and fleshes out to the role that scientific research methods (predominantly those belonging to the social and behavioral sciences) could play in increasing the quality of intelligence products.

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ACADEMIC INTELLIGENCE – A PLURIVALENT CONCEPT

Oana-Andreea SANDU*

In the current article we intend to analyze one of the concepts that has been increasingly debated in the international intelligence studies scholarship, but yet too scarcely presented in the scientific debates taking place in Romania – namely academic intelligence. Recently, Ion Grosu, Deputy Director of the Romanian Intelligence Service, has tackled this subject within a volume written by practitioners in the intelligence field, and identified three meanings of the concept: 1. leveraging the knowledge of researchers and other experts outside the intelligence community; 2. best practices and methodologies pertaining to different disciplines that have been adopted and adapted to the intelligence field; 3. the development of research and education in the intelligence field and the development of an intelligence academic discipline.

Starting from the three meanings of the term that have been previously presented, we will then analyze different points of view of practitioners and scholars, evolutions and good practices, in an effort to underline the importance of the concept for the intelligence community and for improving the defense of the national security.

Keywords: *academic intelligence; outreach; intelligence analysis; knowledge; expertise.*

Introduction

As the Cold War ended, the security environment has undergone profound mutations, both in terms of actors involved, but also in terms related to the nature of security threats and risks.

If prior to this moment the mission of intelligence services was, mainly, to provide the vital intelligence for taking decisions in the field of foreign affairs, in confronting the counter ideological block, nowadays, most of the emergent risks and threats are the result of the actions taken by non-state, transnational entities, with a behavior that is little foreseeable or predictable. Furthermore, the concept of security itself has evolved encapsulating dimension related to the economic or cultural field, environmental protection, cyber security and so on. Thus, the intelligence services mission has become more and more complex, focused more on foresight and strategic analysis, on producing the knowledge required by the decision maker to insure the prosperity and security of the nation on medium and long term.

This fulminating evolution of risks and threats has taken intelligence services by surprise, as they acknowledged the need to profoundly reform their structures, procedures and the intelligence process as a whole, only after some resounding failures as the 9/11 events or the Iraq war. Unfortunately, the recent events that occurred in France have demonstrated that the adaptation rhythm of the services to the realities of the new millennium is still too slow.

Moreover, the intelligence services are also facing a genuine "*information flood*". If prior to the fall of the USSR, information on the adversary

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were hard to obtain and limited, in the context of the development of the information society and later of the knowledge society, information superabound. The Internet, the new information technologies, mass media, commercial and military satellites and so on, have made information to travel at an amazing rate and with minimal costs. In the opinion of some intelligence experts "open sources (OSINT[1]) are 95-99% of the answer for the non-military, non-terrorist, non-criminal threats, and no less than 75-85% of the answer for war, proliferation, genocide, and crime."[2] With this information overload came also the problem of distinguishing the false information from the real one, identifying important information and analyzing and processing a huge amount of data that is permanently expanding

The only solution to overcoming these difficulties is represented by the outreach of the services towards the external environment and the cooperation with the other actors involved in the process of knowledge production, especially researchers and academics. They can provide the expertise lacking at the level of some services, can review and amend specific intelligence products, can take part in the elaboration of strategic analysis in less sensitive or low priority fields. Moreover, Academia can provide new research tools and methodologies, which can be adapted and applied in intelligence analysis, to strengthen the analytic capability of intelligence communities. Furthermore, Academia can become a part in the process of strengthening the intelligence culture within society, through developing academic programmes addressed to potential decision makers, the beneficiaries of intelligence products, or to individuals interested in working in the public or private intelligence field. The interaction between intelligence services and Academia has been theorized through the syntagma "*academic intelligence*", a plurivalent concept that covers three dimensions: 1. leveraging the knowledge produced by researchers and other experts outside the intelligence community; 2. best practices

and methodologies pertaining to different disciplines, that have been adopted and adapted to the intelligence field; 3. the development of research and education in the intelligence field and the building up of an intelligence academic discipline.[3]

1. Leveraging Outside Expertise and Outreach Strategies

In 1996, a series of governmental and nongovernmental commissions have drafted reports on the necessity of the American Intelligence Community to be reformed.[4] The overwhelming majority of them have suggested as one of the solutions to adapting the intelligence structures to the new security context that of developing a closer relationship with the experts outside the Intelligence Community, in order to leverage their expertise, knowledge and abilities and to consolidate the existent analytic capability.

Although the arguments in favor of developing and strengthening the relationship between intelligence services and Academia/ business environment were as relevant and strong as possible, it is only in 2008 that the Intelligence Community of the United States of America has issued an official document that supports the development of trusted relationships with the Academia, namely the Intelligence Community Directive Number 205 - *Analytic Outreach*[5], referring to tapping outside expertise in order to enhance the analytic component of

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[1] OSINT – Open Source Intelligence.

[2] Robert David Steele, "Robert Steele Discusses Open Source and Secret Intelligence", interviewed by Jasmine Ashton on 04.04.2013, available at http://highgainblog. com/2013/04/robert-steele-discusses-open-source-and-secret-intelligence/, accessed 15.02.2015.

[3] Ion Grosu, *op. cit.*, pp. 23-32.

[4] For more details see Commission on the Roles and Capabilities of the United States Intelligence Community, *Preparing for the 21st Century: An Appraisal of U.S. Intelligence*, Washington, D.C., Government Printing Office, 1996; Council on Foreign Relations, *Making Intelligence Smarter: The Future of U.S. Intelligence*, New York, 1996; Brookings Institution, 20th Century Fund's Task Force on The Future of Intelligence - *In from the Cold*, Washington, D.C.,1996 și House Permanent Select Committee on Intelligence (HPSCI), *IC21: The Intelligence Community in the 21st Century*, Washington, D.C., Government Printing Office, 1996.

[5] Director of National Intelligence, *IC Directive No. 205 – Analytic Outreach*, available at http://www.dni.gov/ electronic_reading_room/ICD%20205.pdf, accessed 15.02.2015.

the Community. This piece of legislation defines *„analytic outreach"* as "the overt and deliberate engagement by an IC (Intelligence Community) component with individuals outside the IC, …, to explore ideas and alternative perspectives, gain insights, or generate new knowledge." Likewise, *Vision 2015* issued by the Director of National Intelligence of the USA, also underlines the importance of merging the two milieus – "analytic professionals will collaborate with world-class experts in academe, commercial interests, and think tanks, all with similar knowledge and personal networks. Deep expertise will require broad access to open source information, our unique collection results, and a network of outside experts."[6]

Outreach is a permanent and not an episodic interaction, overt and not secret, of mutual cooperation between intelligence services and the academic world. A functional interaction which, among other, seeks to obtain the expertise and/or knowledge that lack at the level of intelligence communities.[7]

As Kenneth Roberts stressed out, with the deepening of globalization, the boarders between the Intelligence Community and the external environment will continue to diminish. The majority of information and expertise required by the IC will be found in "communities of interest" organized around a specific topic, and made up of public and private representatives, be it local, national or international ones.[8] Thus, intelligence services need to establish proper strategies in order to encourage their own analysts to cooperate with outside experts, and, simultaneously, have to implement programmes for including these experts in the process of improving the analytic activity.

In the case of the USA, one can encounter the most diverse range of such instruments and policies, that encompass: using outside consultants in reviewing analytic products (especially strategic type ones, *National Intelligence Estimates*); involving outside experts in single-case projects, focused on certain subjects that are suitable to using mainly open source information; organizing conferences, workshops, round tables, attended by both practitioners in the field of intelligence, but also representatives from Academia, civil society or industry; using the new social media technologies to create virtual networks as collaboration and communication environments between the members of the intelligence services and outside experts; establishing fusion research centers; granting research projects and offering study grants to exceptional students from top universities, in order to employ them as experts within the Community in the areas that have a personnel deficit (especially in s fields related to rare foreign languages, anthropology or cultural studies) etc.

Despite these efforts, there are still reluctances and biases regarding the cooperation between the IC and outside experts, both at the level of intelligence analysts and outside experts. These barriers stem from the organizational specifics of each milieu, and, frequently, from the erroneous perception of the activities undergone by both parts involved.

Moreover, as intelligence analysis in the business environment (*competitive intelligence*[9]) is blooming, and private organizations such as *RAND Corporation*, *Oxford Analytica* are confirming and strengthening their excellent capabilities to elaborate valuable intelligence products, from

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[6] Director of National Intelligence, *Vision 2015: a Globally Networked and Integrated Intelligence Enterprise*, 2008, p. 5, available at http://www.au.af.mil/au/awc/awcgate/dni/vision_2015_july08.pdf, accessed 15.02.2015.

[7] The article *L"Intelligence e l"academic outreach*, posted 22.03.2010, available http://silendo.org/2010/03/22/lintelligence-e-lacademic-outreach/, accessed 13.02.2015.

[8] Kenneth Roberts, „*Better Analysis Through Networking – Expanding Outreach an Era of Global Challenges*", p. 3, paper presented at the 2005 ISA Convention, available at http://www.scribd.com/doc/28736060/Better-Analysis-Through-Networking-Expanding-Outreach-an-Era-of-Global-Challenges, accessed 13.02.2015.

[9] To be differentiated from intelligence analysis within and inside the company (business intelligence), which refers, on one hand to the optimization, efficientization and performance of the functional system of a company, and on the other hand, to the protection and the reaction of the functional system of a company to the internal and external threats it is subjected to. Together with the intelligence analysis of the business environment (competitive intelligence) within which the company is acting, it forms the hard intelligence nucleus of the company.

open source information, intelligence services find themselves in the situation to compete with these private institutions for attracting the most competent human resource and sometimes even for the intelligence beneficiaries.

As the necessity of cooperation between the IC and the Academia/private environment has been acknowledged and supported by the USA, the model has extended to other intelligence communities, especially those of the partner countries. Taking into account USA's status of superpower, the extent of the American IC, but also the considerable funds allocated to the defense and security field, it is obvious that the measures adopted by the other states have been adapted to their own case, being re-dimensioned and structured in accordance with their own characteristics.

A first illustration of these facts is represented by the Canadian Security Intelligence Service (CSIS), which starting from the 2000s has incorporated open source information in its intelligence products. But, according to the officials, that strategy was a rather passive one, resuming to scanning different information milieus, without tapping outside expertise, thereby reaching an information overload. Staring with 2006, the analytic branch of the Service has occasionally reached out to experts from the Academia, think tanks and NGOs, in order to strengthen its analytic capability. In September 2008 the Bureau for Academic Outreach Program has been established, with the full support of the Service's Director. The Bureau has started as a team of two people, selected for their expertise and knowledge on the Service, the Canadian Intelligence Community and the Canadian and international Academia and think tanks. In the winter of 2009, the team grew to four persons. Also, enough funds have been allocated in order to experiment different types and outreach approaches.[10]

According to the CSIS, the Academic Outreach Program aims to fulfill two main objectives:

- to integrate the Service into networks of experts from various disciplines and sectors, including government, think-tanks, research institutes, universities, private business and non-governmental organizations in Canada and abroad. Where these networks do not exist, CSIS is taking into account the possibility of establishing them in partnership with various organizations;

- to stimulate the study of issues related to Canada's security and intelligence apparatus, while contributing to an informed public discussion about the history, function and future of the system. [11]

The establishment of this program coincided with the organization's attempt to raise the efficiency of collection and reduce the usage of secret sources only to those cases where the required information could not be obtained otherwise. In addition, the partnership with the Academia could stimulate the development of the dialogue taking part between the analysts of the intelligence services that make up the National Intelligence Community, thus elaborating integrated analytic products. Conferences, seminars, workshops and lectures are the main instruments used by the Service to fill the knowledge gaps and to leverage the capability of outside experts to elaborate long term estimative analysis, a cognitive exercise that intelligence analysts are frequently deprived of in order to respond to tactical requirements.[12]

In Spain, *Centro Nacional de Inteligencia (CNI)* has launched since 2003 a program entitled *La Cultura de Inteligencia*, in an attempt to make the society acknowledge the importance of the functions and missions of the intelligence community as "a part of the democratic state, that acts to protect the law and under the law". Also, the Program seeks to underline the importance of intelligence analysis as a basis for strategic

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[10] Louise Doyon, "One Year Through: Taking Stock of the Canadian Security Intelligence Service (CSIS)'s Program of Outreach to Experts", paper presented at the International Studies Association Convention, New Orleans, February 2010, available at https://www.csis.gc.ca/pblctns/wrldwtch/2010/takngstck-en.php.

[11] CSIS, *Academic Outreach* – section of the official website of the CSIS, https://www.csis.gc.ca/bts/cdmctrch-en.php, accessed 06.03.2015.

[12] Louise Doyon, *op. cit.*

decisions taken in a more and more globalized and uncertain environment, while encouraging the expertise exchange between the members of the intelligence community and the representatives of the Academia and the business milieu, an interaction that is beneficial to both parts. [13]

Among the measures undertaken within this initiative are:

- the establishment of a MA program on intelligence analysis, in partnership with four Spanish universities. This MA program was launched in 2009 and has an applicative nature, its aim being that of training experts in the field of intelligence analysis for both public and private institutions;

- hosting seminars, workshops or congresses, so as to disseminate the security culture and to create a favorable context for the exchange of opinions among experts within the Intelligence Community and outside experts or homologous from abroad.

- supporting the editing and publishing of several publications, in Spanish, on the topic of intelligence, such as: *Revista Inteligencia y Seguridad: Revista de análisis y prospectiva,* a Dictionary and a Glossary on intelligence, volumes on intelligence studies that are the result of international cooperation or of the scientific events that have been organized.

- the signing of 11 cooperation conventions with Spanish universities, so as to strengthen the security culture, establish university programmes on intelligence analysis or research certain topics of interest for the *CNI.[14]*

Although according to Ruben Arcos[15], no quantitative analysis have been made on the number of articles, collective volumes or monographs having as topic intelligence studies and having been published as a result of the intelligence culture initiative, it is obvious that the specific scholarship has been growing

exponentially the last decade. The same ascending trend can also be noticed in the case of events on topics referring to intelligence studies. Both the publications and the events are addressed to the general public and seem to have strengthened its trust in the National Intelligence Community.[16]

2. Science and Intelligence – Adapting Methodologies

Christopher Corpora[17] underlines the fact that the work of intelligence analysts and social sciences researches are very similar in terms of process and methodology, despite the different objectives and data sets.[18]

Sherman Kent, the father of intelligence analysis, has acknowledged as early as 1949 the similarity between social science and the new field – "most of the subject matter of intelligence falls in the field of the social sciences" – and advocated for the development of its own methodological corpus and for the theoretical substantiation of the field.[19]

Stephen Marrin has systematically addressed the issue of making a parallel between intelligence analysis and other scientific fields, underlining the fact that "intelligence analysis is rooted in the methodologies and epistemologies of the social sciences". He also argues that it was Klaus Knorr who best described how analysts can use social sciences. Thus, Knorr held that "the central task

[13] CNI, Cultura de Inteligencia – section of the official website of the CNI, http://www.cni.es/es/culturainteligencia, accessed 06.03.2015.

[14] *Ibidem.*

[15] Professor and Deputy Director of the Centre for Intelligence Services and Democratic Systems, "Rey Juan Carlos University", Spain.

[16] Ruben Arcos, "Trusted Relationship Management as an Intelligence Function", in Teodoru Ştefan, Irena Dumitru (ed.), *Proceedings of the XVIIIᵗʰ International Conference Intelligence in the Knowledge Society,* Bucharest, "Mihai Viteazul" National Intelligence Academy Publishing House, 2013, p. 71.

[17] Professor Christopher Corpora has held several official position within the United States Department of State (Foreign Affairs Ministry), the Intelligence Analysis Branch of the Federal Bureau of Investigation, the United States Department of Defense (Defense Ministry), as well as within the Office of the Director for National Intelligence, under the direction of the President of the USA, and is an expert in international development and security.

[18] Christopher Corpora, "The stone and quarry: Intelligence studies in a dynamic global environment", *American Intelligence Journal,* Vol. 25, Nr. 1, 2008, pp.12-23.

[19] Sherman Kent, *Strategic Intelligence for American World Policy,* Princeton, Princeton University Press, 1949.

of the intelligence officer, historian, and social scientist is to fit facts into meaningful patterns, thus establishing their relevance and bearing to the problem at hand" and accounts in a well-argued manner for the suitability of "social science methods of gathering data, of deducing data from other data, and of establishing the validity of data that are of a particular value… in producing appropriate kind of information for intelligence".[20]

In time, a series of programs have been implemented to impel the more frequent and systematic usage of the best of social science methods in the analysis process. For instance, in 1999, officials from the US National Security Council suggested that Academia develop an arsenal of social scientific methodologies – later termed in the literature as *structural analytic techniques* – so that analysts could understand how thinking can be done and how methodologies work.[21]

Structural analytic techniques offer a sort of rigor to the analytic process; diminish possible omissions, errors that may occur as a result of biases or mental frames. Furthermore, using combined techniques and group techniques generates a more complex and full perspective over certain issues, encapsulating different points of view.

But the methodologies and techniques that could be adapted and applied in the intelligence analysis activity are not just limited to social sciences. In the specific literature there are numerous comparisons between the field of intelligence analysis and medicine, anthropology, journalism, weather forecasting, archeology or even neuroscience.[22]

The volume edited by Treverton and Agrell – *National Intelligence and Science* – is a premiere, as it analysis in a comprehensible manner two converging fields – science and intelligence analysis and the implications of this process,

both in terms of a more scientific approach of issues related to intelligence analysis and a more intelligence like approach of scientific issues. Science and intelligence analysis are two domains of knowledge production, remarkably similar and interlinked, yet ones that remain divided by political, cultural and epistemological reasons. Though, as the author argue, "these two twentieth century monoliths" are becoming outdated in their traditional form, but the risk society is closing the divide between the two fields, in a direction not foreseen by the proponents of turning intelligence analysis into a science, or the new production of scientific knowledge.[23]

It is obvious that partnerships and know how exchanges between researchers and intelligence analysts are opportunities for both parts, resulting in a growth of knowledge. Uncertainty and knowledge have become the emblems of the new millennium and the permanent coordinates of the decisional process. Thus, the cooperation of all factors that are correlated to knowledge production cannot lead but to a better substantiation of the decisions affecting individual, national, regional, and global security.

3. A New Academic Discipline – Intelligence Studies

Researching and teaching intelligence studies by Academia can influence the manner in which the general public perceives the way intelligence services act, and the options taken in the public policy field related to making intelligence services better.

Moreover, the establishment of university programs addressed to those outside the intelligence communities leads to a favorable context for training experts in the field of intelligence analysis, potential practitioners within special services, public institutions or even the business environment. In addition, such programs strengthen the intelligence culture at the level of possible stakeholders – current/future decision makers, representatives from the mass media or the civil society, individuals that have

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[20] Wilhelm Agrell, Gregory Treverton, *National Intelligence and Science. Beyond the Great Divide in Analysis and Policy,* Oxford University Press, 2015, p. 86.

[21] *Ibidem.*

[22] For further details please see Chapter 5 "Exploring Other Domains" of W. Agrell, G. Treverton, *op. cit.,* pp. 80-109.

[23] *Ibidem.*

the capability of influencing public opinion in a well-argued manner.

Because of the specifics of the field and the focus that has been put in the past on mysteries and secrets, but also because of the biases inside the Academia related to cooperation/ involvement in activities linked with the secret services, intelligence as a field of research and study has represented an exception for the universities/ research centers outside the intelligence communities. But with the security paradigm shifts taking place, intelligence studies have increasingly caught the attention of Academia. Thus, if in 1985, in the USA, there were 54 courses related to intelligence studies at the level of higher education institutions, in 2010 there were approximately 850 such courses. [24]

In addition, intelligence services of some states like the USA, Spain, Great Britain or Italy have invested considerable resources in the development of intelligence studies educational and training programs in partnerships with prestigious universities. Also, a series of associations, institutes, frequently led by former intelligence practitioners, have established a range of intensive courses addressed to those interested in acquiring general competencies in the field of intelligence analysis or business and competitive intelligence.

The curricula of these programs are different, in correlation with the character of the institutions that host them and the structure of the teaching staff. One can observe that, in cases where practitioners are involved in teaching and training activities, the programs have mainly an applied character, focused more on developing practical competencies and abilities, than on acquiring theoretical concepts. On the other hand, in the case of humanistic departments or teaching staffs made up only of theoreticians, the proportion of applied activities is reduced, while the teaching of theoretical concepts referring to the functions and mission of services, specific legislation or historical analysis of some case studies, prevails.

But just the establishment of intelligence studies courses is not enough to transform the field in a distinct academic discipline. According to Stephen Marrin[25] what is needed is the establishing of formalized processes for creating, documenting, storing, and disseminating knowledge in such a way as to ensure that future generations of scholars and practitioners in the field can benefit from them.

To be more precise, one needs to undertake a long term process, encompassing five steps: 1) documenting what is known; 2) evaluating it for gaps in knowledge; 3) working to fill those gaps in knowledge; 4) distributing this knowledge to those who need or want it; and 5) institutionalizing these efforts.[26]

Conclusions

Academic intelligence, no matter its sense, should become a constant focus for intelligence services. Establishing dedicated academic programs, supporting the research of the field by scholars from different disciplines, multiplying dissemination channels for the knowledge in the field of intelligence studies, but also reaching out to external expertise, and adapting techniques and methodologies from other sciences, have numerous positive effects at macro and micro level.

These effects are not limited only to the improvement of analytic capabilities or the strengthening of the intelligence culture at the level of the society, but also imply the repositioning and transformation of the role of intelligence services within national states. In an era where knowledge means power, a national intelligence system, encompassing in a coherent

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[24] Ion Grosu, *op. cit.,* p. 25.

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[26] Stephen Marrin, "Improving Intelligence Studies as an Academic Discipline", *Intelligence and National Security*, 2014, p. 10, DOI: 10.1080/02684527.2014.952932.

manner all the actors involved in the knowledge production process represents the only chance to obtain and preserve a competitive advantage in front of other state and non-state actors that can threaten the security of a nation and its citizens.

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INFORMATION AND STRATEGIC SURPRISE: PROSPECTIVE ANALYSIS OF WEAK SIGNALS

Doru POGOREANU*

The issue of unforeseen events, whose manifestation produce major changes at strategic level, surprising a strategic actor or more by another actor who, thereby, obtains a major advantage, is studied and known as "strategic surprise". Under certain conditions, these events can become "strategic ruptures". The role of information communities becomes thus diversified, with the increasing of the uncertainty, specific of the current period.

The focus is not only on major trends, but also on "weak signals", that can foreshadow the events of low intensity and importance at present, but may produce major effects later on. The role of this type of signals that may predict events, such as "wild cards", is becoming more topical for foresight researchers, in the long-term analysis of strategic level.

Keywords: *strategic surprise, strategic rupture, weak signals, wild cards.*

Introduction

Strategic surprise crosses history, with implications not only at the military level, but also at other levels of social life, from political to economic or social, and from psychological to cultural.

Multiform, the shock wave initiated by such an event produces reactions, victims, affecting populations and elites, devastates or builds, regenerates or destroys, causes ruptures.

The strategic surprise thus becomes an unavoidable phenomenon imposing on the strategist, but quite often misunderstood,[1] how the French General Vincent Desportes states.

Reality opposes the military planner and policy makers, the need for rationality and order is confused by extreme events, nonlinear and chaotic, like the wild boar perceived and in vain chased by the Levantine prince in Stefan Augustin Doinaş' poem, "The wild boar with silver fang". Even if it is perceived, suspected, this beast surprises because of the unpredictability of the moment when attacks.

The surprise is specific to the predator, hunter, who is unseen, indistinguishable, attack as thunderbolt, causing action paralysis of the victim and applying the fatal blow at the right time. To surprise and to be surprised separates the victim from the winner.

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[1] Vincent Desportes, *Libre opinion du general Vincent Desportes "Penser la surprise strategique"*, 10 November 2014, http://www.asafrance.fr/asaf/identite/item/libre-opinion-du-general-vincent-desportes-penser-la-surprise-strategique.html

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What is a "strategic surprise"? There are many definitions for the "strategic surprise", according to authors, eras or developments of war and the security environment.

With the end of the "Cold war", transition from a bipolar to a multipolar world was made at the same time with the transition from the major danger of a military confrontation between the two military blocs (including nuclear risk) to a multiplication of risks, more complex and with rapid developments. The increasing uncertainty creates difficulties to politico-military decision-makers by increasing the reactivity, in detriment to the long-term security projects.

Are intelligence structures and communities able to cope with the challenges of growing uncertainty? Can "strategic warning" face the surprise? What makes the difference between tactical or strategic warning, when the two levels cross from one to the other? For how long can strategic warning be evaluated?

All states have defence ministries, which induces the idea of defence, protection against a possible aggressor. At declaratory level, no state has military forces or institutions for "attack", or an "offensive ministry". On the other hand, every state seeks to improve and modernize its army, which could induce the idea that, in an uncertain future may have the potential to attack. In this case, strategic warning would be simple, any other state may, at some point, be capable of strategic surprise.

The problem becomes complicated when assessing an imminent assault, when the risk of late warnings is possible. This dilemma can create paranoid reactions of the type of a "fortress-country", as communist Albania (note the fear of an external attack on the communist regimes) and the false alarm syndrome, known from the story "Peter and the Wolf". Even if it seems childish, the false alarm phenomenon, keeping the proportions, generated the same kind of reaction as in the story, discrediting and passage in derision of essential information. Pearl Harbor episode, and not only, was possible due to the phenomenon of false alarm, which, from the point of view of military decision-makers,

was consuming significant resources and very expensive. Strategic surprise is difficult to prevent, even if there are some reliable information.

In front of a tsunami of information, violently flooding, finding the direction of the flow or the most appropriate solutions on the long term is a major challenge. Strategies are facing the defiance of strategic surprises, ever more numerous.

The role of intelligence communities is changing abruptly, the risk of strategic surprise being much more frequent. Can unpredictable phenomena be avoided? Can there be detected hardly predictable developments, like Pearl Harbor, the collapse of the USSR or 9/11?

The answer can be positive, by targeting prospective analysis to also study weak signals.

Increasing the attention towards detecting events seemingly insignificant, but which afterwards cause major effects, requires studying the identification methods and developing a prospective/foresight culture of.

In this study, we will try to answer the question whether the intelligence structures can prevent "strategic surprise" in an increasingly unpredictable security environment and whether the use of prospective methods can help to reduce strategic uncertainty.

1. Strategic Surprise – a continuous novelty

The concept of "strategic surprise" reappeared in the attention of specialists, not only with the Ukraine events, but also with the development of the French security and defense "White Book" in 2008. Extensively analysed and studied subject in the Anglo-Saxon area of research, the concept was rarer addressed in Latinophone area, although its importance has grown with the end of the Cold War era.

In unison, analysts say that uncertainty increased after the fall of the Berlin Wall, and the causes are multiple. Although the topic is "fashionable", the strategic surprise problem is not new, from Sun Tzu to Clausevitz or Jomini to Handel or Porch.

Examples abound from Antiquity until

today, the subject being amazingly varied. Characteristics, types, relations of strategic surprise with military decision process are a challenge of the utmost importance, frequent conclusion being that "strategic surprise" can not be avoided. And yet, analytics as the theory of "Black Swan", "weak signals" analysis or "Wild Cards", try offering answers to solve an equation with a high degree of indeterminacy.

1.1. Definitions

Definition of *surprise* (verb) in *Merriam-Webster Collegiate Dictionary* is "to attack unexpectedly, also: to capture by an unexpected attack."[2] However, the definition is far from describing the essential elements of surprise in military sense.

It is interesting that the dictionary places the word surprise within a military context, compared with *Romanian general dictionaries* (*surprise* fem.noun 1. The act of taking someone by surprise. 2. Everything unexpected that surprises by its nature, unpredictable. ♦ Everything that causes an unexpected joy, a pleasure, gift, from Fr. surprise)[3]. Surprise, defined as an unexpected event, and wide acceptance, followed by joy consequences of action or event in our general dictionaries has no strategic or military dimension.

In the US Air Force manual, surprise is characterised by the following remark: "Strike the enemy at the time, place or manner for which he is unprepared. In this sense, the principle of surprise is the reciprocal principle. Hiding one's capacities and intentions creates the opportunity to hit the enemy when he is not aware or prepared, but strategic surprise is difficult to achieve. Rapid advances in strategic surveillance technology are increasingly difficult to mask or hide widely positioning or movement of personnel and equipment[4].

According to Richard Betts' "strategic surprise happens when the victim does not appreciate why, when, where and why your opponent will strike"[5]. The key to mitigating surprise, if not totally avoiding it is, therefore, the most effective management of the problem of uncertainty (i.e. the existence of insufficient or ambiguous information about the enemy's intentions). At first glance, the difficulty of managing uncertainty may seem insurmountable. While searching for better forecasting is understandable, insofar as the threat of surprise attack is concerned, it can discern a distinct historical pattern. Betts also finds that "thunderbolt does not appear from nowhere. Sudden attacks occur after prolonged political conflict. They often do not appear at the peak of the tension, but are preceded by periods in which defence leaders believe that war is possible"[6] In other words, to the extent that uncertainty is a serious obstacle to efficient planning against the threat of strategic surprise, it is a problem circumscribed to the relatively strong knowledge of the potential sources of surprise.

As defence analyst, Paul Davis notes, "not only uncertainty is pervasive, but it is impossible to get rid of it just by working hard. However, this did not stop the defence planners to try, to risk. Hoping at least to reduce the uncertainty zone, planners have come to rely increasingly more on a variety of sophisticated forecasting methodology, from developing scenarios to alternative futures analysis"[7].

From the definitions presented results, on the one hand, the difficulty to achieve strategic surprise, and on the other hand that there is "no smoke without fire", the attack being the result of a number of conflicting events of non-military nature that can give clear signals on its onset.

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[2] *Merriam-Webster's Collegiate Dictionary*, 10th edition, Merriam-Webster Inc., Springfield, Massachusetts, 1993, p. 915.
[3] Dicționare ale limbii române, URL: http://dexonline.ro/definitie/surpriz%C4%83, accessed at 20.06.2015
[4] ***, *Air Force Manual (AFM) 1-1, Basic Aerospace Doctrine of the United States Air Force*, March 1992, URL: http://www.dtic.mil/dtic/tr/fulltext/u2/a338559.pdf ,

Figure 1, *Principles of war*, p. 1, accessed at 19.06.2015
[5] Richard Betts, „Analysis, War, and Decision. Why Intelligence failures are inevitable", in *World Politics*, vol. 31, no. 1, October 1978, pp. 61-89.
[6] *Ibidem*, pp. 61-89.
[7] Paul K. Davis, "Defense Planning and Risk Management in the Presence of Deep Uncertainty," in Paul Bracken, Ian Bremmer, and David Gordon, eds., *Managing Strategic Surprise: Lessons from Risk Management and Risk Assessment*, New York, Cambridge University Press, 2008, p. 200.

1.2. *What classics say*

The thirteen Articles of the classic Sun-Tzu, although written since Burebista, remain surprising modern even today. The statement "the war is based on deception"[8] encrypts, in the style of Chinese literature, the essence of strategic surprise. The connections between Sun-Tzu and the philosopher Lao-Tzu and (Dao-de-Jing - "The Way and the Power") can be intuited, the relationship between the Emperor's power and the responsibility of the "commander in chief" passing through the approach of the strategy mode.

The attack relies on surprise, the famous adage "attacked like the hawks" suggesting not only the speed, but also picking the right time, foreshadowing the modern concept of "timing".

In Europe, we find ancient writings which refer to "strategems" as Frontin book (40-103 A.D.) "Stratagemata" that describes all known methods to mislead the enemy[9]. Polyen described in his turn the stratagems of the second century A.D. in a book dedicated to Emperors Marc Aurelius and Lucius Verus[10]. The influence of these books returned with the Renaissance, running up from chivalrous confrontations, such as duel between equals, to a "modern" concept. The subject is taken up by Machiavelli in "The Art of War", who, for the first time, takes in consideration the issue of the psychological impact of surprise over an army[11].

Though "On War" is a comprehensive book, surprisingly Clausewitz does not give enough attention to strategic surprise. The explanation could be because of the reduced means to create surprise at the time, and Clausewitz definition is: "The surprise becomes, by is its consequences, the mean to ensure superiority ... once realized, it resembles the confusion and shatters the courage of the enemy."[12] In his conception, the surprise is more common at the tactical level, the proximity to a politico-military area making it more difficult to achieve.

The authors of the nineteenth century, as Marshal Foch or Ardant du Picq take Clausewitz's ideas and address surprise issues related to enemy's morale and its will, the issue being linked to the changing issues of moral of the fight.

Indeed, the idea that surprise could be used for strategic effect is recent, Carl von Clausewitz rejected it largely as a matter of practical interest. "While the desire to achieve surprise is common and, indeed, indispensable, and while it is true that it will never be completely ineffective, it is equally true that, by its nature, surprise can rarely be a success"[13] Clausewitz wrote. "It would be a mistake, therefore, to assume surprise like a key element of success in war."[14]

Michael Handel notes "Although surprise was always possible at tactical level, its feasibility at strategic level is a relatively new historical phenomenon of the twentieth century"[15]. Achieving surprise at the strategic level is difficult, but not impossible. Israeli-Arab wars, invasion of Kuwait, and many other military or political technological and cultural events were surprising and shocking, taking aback one of the sides, initial results being spectacular.

2. Features

Surprise can be understood as a contingency. In this category can enter natural phenomena, disasters, earthquakes can be predicted with tens of seconds before the start, which is practically devoid of any significance to react, flooding can be expected in about 24 hours, and hurricanes and storms in days. The reaction of the authorities and the population in such situations is often post-

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[8] Sun Tzu, *Arta războiului (The Art of War)*, Editura militară, București, 1974, cap. VII Maneover aln.12, pp.41.

[9] For details, see Frontius, *The Stratagemata. The Author, the Manuscripts*, URL: http://penelope.uchicago.edu/Thayer/E/Roman/Texts/Frontinus/Strategemata/home.html, accesed at 10 June 2015.

[10] For details, see Polyaenus, *Stratagems*, URL: http://www.attalus.org/info/polyaenus.html, accesed at 10 June 2015.

[11] Niccolo Machiavelli, *Arta războiului (The Art of War)*, Editura Antet, Oradea, 1999.

[12] Carl von Clausewitz, *On War*, Princeton University Press, Princeton 1976, p. 197.

[13] *Ibidem*, p.198.

[14] *Ibidem*, p.198

[15] Michael Handel, "Intelligence and the Problem of Strategic Surprise", in Journal of Strategic Studies, Vol.7 (September 1984), p. 231.

event. Natural phenomena can influence the fate of military campaigns, such as Kamikaze, "divine wind", a name given by Japanese powerful typhoons which sank Mongol fleet in 1274 and 1281, when Japan was faced with imminent invasion. Invincible armada will hardly cope with storms in the Bay of Biscay, and "General winter" contributed to Napoleon's withdrawal and also stopped the German offensive in the Russian steppe.

Unforeseen events can also be considered disasters generated by technology, as the Chernobyl disaster, Bhopal case in India, or piling-up of Amoco Cadiz vessel.

Survival or death of leaders can unleash strategic surprises, all with unforeseen consequences, from Alexander the Great saved at the last second in Granicos battle, Hindemburg's death, the attack by the Serbian student Gavrilo Princip on Archduke Franz Ferdinand, or Hitler's survival after "Wolfsschanze" tentative.

Surprise is the prerogative of policymakers and military, which transforms a long prepared plan in a surprise for the opponent. In this case, strategic surprise is provided by one of the parties.

Strategic surprise has specific characteristics. First, strategic surprise can disturb the balance or the situation at a specific time, resulting in geopolitical effects. The "revolutionary" character of misbalancing the status quo produces ruptures in the social order, being a major factor that dramatically disturbs all society levels.

Secondly, it causes either a paralysis or a mobilisation reaction, equivalent to the individual natural reaction of blocking, run or attack. The speed of the event' manifestation produces reactions in response, the worst being the strategic paralysis phenomenon, when the decision-making at politico-military level crashes. Short-term effects are devastating. In the long term, the effects diminish or disappear.

From a military perspective, achieving strategic surprise is not always equivalent to victory. The Japanese attack on Pearl Harbor did not lead to victory, as the plan Barbarossa had effect only in the initial phase of the conflict.

Third, strategic surprise can be characterized as a mental psychological state. The link to social psychology is very strong, in the assessment and analysis stage of events, when the erroneous approach leads to wrong decisions or reactions, most being based on mentalities and conceptions inadequate for the actual situation. For example, analysts around President Kennedy in the Cuban crisis were all white, had the same type of university education, resulting the disaster in the Bay of Pigs. Their lack of empathy, the approach that did not take into account the local culture and reality, the phenomenon of "single truth" that belongs exclusively to the final decision maker, often led to strategic blindness.

3. From strategic surprise to strategic rupture

We can consider that "strategic rupture" falls within the range of "strategic surprise". The term is not clearly defined, relatively rarely used. By it, we can understand a phenomenon which, by his apparition, modifies structurally and irreversibly the social system, revolutionizing various areas of society. Part of the strategic surprise, the phenomenon of rupture exceeds the capacity of resilience of the system, the return to its initial state, as before, no longer being possible either for a long term, or total impossible.

Strategic rupture occurs in various forms. We can find forms of strategic rupture in common mentalities, in the economic or military domains. Strategic fractures of social thinking can affect the collective mind. There may be a break in the religious beliefs, the appearance of Christianity dislocating ancient religions, after that ruptures occur inside it, like the "Great Schism" or, as within Catholicism the "Lutheran reform" and the division between Sunni and Shiites in the Islam. Schools of philosophical thought can generate such mutations, as well as moral doctrines. Confucianism and the "path" doctrine (Dao) will generate a specific type of decisional act at the level of the Chinese emperors, with influences until today, even if the "cultural revolution" during Mao tried to radically replace the vision

of unity and consensus with a doctrine of battle.

The atheism of the French Enlightenment produced the French Revolution, a moment of strategic rupture that paved the way for modern nations, but also sowed the bitter seeds of communist ideas. Rupture of communist ideology is imposed by force and propaganda, taking in a profane manner religious themes. Communism is "Light comes from the East", the other ideological tendencies are retrograde, religion becomes the dark. Communist leaders have a messianic role, happiness and bright future being their exclusive preserve. The control of future is an attribute of a party's force, approaching thus the sacred and the divine.

Strategic ruptures within politics are caused by slow developments, with repeated changes and reorganizations, iterative or sudden, violent changes, of the type of revolution.

These changes mark the developments in many other areas, economic, demographic or military, in a continuous interrelation.

Economic emancipation of the bourgeoisie has generated political movements for it to accede within political decisions' sphere, and as such to be able to support their interests. The economic level is subject to strategic rupture, in particular by technological ruptures. We remember Toffler's theory of the three waves, agricultural, industrial and computer, or we can search for inventions that have revolutionized human society, from the fire and the wheel, up to the internal combustion engine, electricity or computers.

A form of the rupture phenomenon can be identified at the collective mental level, boosted by the Internet: Networks are perfect channels for fears or collective fantasies, for generalization of fear, but also great uncertainty. A world of superposed crisis was installed in the minds, haunted by fears and there occurs a real strategic rupture at the collective thinking level[16] says Vasile Dâncu.

In this vast context of various types of strategic ruptures, the military has its peculiarities. All other types of fractures generate, in turn, effects in the military. Widespread tendency is to consider technological change as the main source of disruption in the military. It is a fact that gunpowder, aircraft, tank and submarine or the atomic bomb marked the wars, their emergence marking the military history.

The analysis of the will to fight is less studied though, the ability to sacrifice for the nation or for a cause. Bellicose ardour can be cultivated, as Arab extremists do with their young children, or as child soldiers are formed in Africa, or it can be blocked through educational programs condemning violence. From assertion of military qualities as major attributes of virility, to awareness of citizen as a defender of core values, the will to fight can make a difference in armed conflict.

Between the Persian army that had slaves to triremes and the free citizens of Greek polis, also working on the triremes, victory was on the side of freedom, which is a true phenomenon to the day.

4. Weak Signals

Since its inception, the prospective of defence was defined as a means to "conceive what is inconceivable" to think out of the box. Today, this requirement is stronger than ever. However, prospective of defence by institutionalization gradually lost this original skill. Evolution of prospective is facing a major challenge: not only the identification of trend, major trends, but also identifying weak signals. This leads to further reflection on scenarios like "wild card".

What are actually weak signals? Igor Ansoff, who initiated the weak signal analysis, has focused on the study of science management. He defines them as "exogenous signals (e.g. lower quality of labour suppliers) or endogenous (e.g., increased absenteeism staff) too incomplete to allow accurate assessment of their impact and/or to determine a global response"[17]. For Ansoff, any event goes through different levels of knowledge, from weak signal to a strong signal. Examples

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[16] Vasile Dâncu, "Argument pentru sinteză", URL: http://www.oranoua.ro/vasile-dancu-argument-pentru-sinteza/ , 22 January 2014, accessed at 21.06.2015.

[17] Igor Ansoff, *Strategic Response to Turbulent Environments*, Working Paper n° 82-35, European Institute for Advanced Studies in Management, Bruxelles, 1982.

are numerous, such semiconductors were known in 40 years, but in terms of the market they were a weak signal. Once the market matures, the forecast becomes easy, as will be the case of transistors. There can be observed a period of "incubation" for such phenomena.

The term is frequently used in management sciences, as part of the field of economic intelligence, but also occurs in communication theories, which complicates the definition.

For prospective researchers, this concept has various definitions. Michel Godet believes that a weak signal is a factor of change, less perceptible now, but that will be a major trend in the future[18]. In turn, Pierre Massé considers them «faits porteurs d'avenir " (facts bearing future). He stressed that "we must discover tiny sign by its current size, but huge in its virtual consequences, announcing a technical mutation, economic or social"[19].

Finnish researchers concluded that "a weak signal is an early warning, a change that often becomes more powerful when combined with other weak signals. [...] A weak signal is usually identified by Pioneers or a specific group, not by experts that study the field"[20].

The characteristics of a weak signal are similar to an "early warning", but it is not necessary for it to materialize. A weak signal is a "carrier of the future", it can carry the signal of a possible move, but not also the certitude of this move.

The distinction must be made between two apparently similar terms, as "weak signal" is not identical to "wild card". The first is a signal that can be achieved or not in the future, that may signal an event. The second term, according to Mendonça e Pina Cuhnia, Kaivo-Oja and Ruff, is the description of an event considered unlikely, but that would have great and immediate consequences if it occurred.

Weak signal, which may indicate the occurrence of an event of the type of wild card is a sign with the following characteristics:

- it is the bearer of a trend that could affect the institution, or the analysed system;
- has the novelty or surprise for the receiver;
- it "drowns" in the noise, in the mass of information;
- it can carry a threat or an opportunity for the institution/system;
- often, it can be ignored by those who "know";
- there is an incubation period before becoming mature or recognized;
- there is a chance to learn and evolve.[21]

Conclusion

The study of weak signals becomes day by day more important. Between defining the trends and searching for weak signals, regarded as extremes of a long-term analysis, the distance decreases due to increasing uncertainty.

Strategic surprise, ignored or sought assiduously, there is increasingly is manifesting itself more and more often. Paradoxically, a large volume of information, or "on line" surveillance only partially reduce the risk for the manifestation of strategic surprises. It is not the lack of information that leads to surprising events, but misinterpretation or mentalities and different logics in the same system t hat lead to focusing of attention elsewhere. Many of the best known and cited strategic surprises had clear signs, but that were only "seen" post-factum.

Some of them will have the character of "strategic rupture" with multiple and long-term implications. Some ruptures are reversible, others are not. The emergence of communism was a major strategic rupture, but after 1989, while Eastern European countries' returning to the set of democratic values is a sign of reversibility.

[18] Michel Godet, *From anticipation to action, A handbook of strategic prospective*, Unesco publishing, 1994, p. 59, URL: http://www.laprospective.fr/dyn/anglais/ouvrages/from-anticipation.pdf.

[19] Pierre Massé,. "Planification et prévision" in *La Table ronde*, n° 177, octobre 1962; Brian Coffman,. "Weak Signal Research". *Journal of Transition Management*, 15 janvier 1997.

[20] Osmo Kuusi, , Elina Hiltunen, et Hannu Linturi,. "Weak Futures Signals" in *Futura*, Helsinki :Finnish Futures Society, n°2, 2000.

[21] Brian Coffman,. "Weak Signal Research", *Journal of Transition Management*, 15 janvier 1997

The role of information analysis and completion characteristics of events that can be strategic surprises knows deep changes. In this context, the study of events that can be considered "weak signals" can determine the identification of phenomena type "wild cards", events that are considered unlikely, but the occurrence of which generate major effects. Such events, which can be classed as tactical or operational level, in military terms, can have major effects on a strategic level.

The methods of analysis of weak signals must be known by analysts and decision makers, as well as by the foresight methods. The existence of a mentality based on a prospective culture can generate a deeper understanding of the realities and generate more appropriate reactions in response. Temporal horizons can be unified between immediate emergencies, medium-term needs and long-term visions, consistent correlations can exist at the decisions and actional levels.

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UNCONVENTIONAL TECHNOLOGIES IN THE MODERN WARFARE: WEAPONS, CONCEALMENT/CAMOUFLAGE SYSTEMS, MEANS OF TRANSPORTATION

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Over the past decades were revealed all over the world certain aspects which have become known in the literature by syntagmas such as the "Revolution in Military Affairs" or the "multidimensional modern confrontation" etc. These aspects, which have a strong influence on the military phenomenon in all its sides, highlighted some major changes which are virtually unprecedented in terms of military thinking, ways of confrontation, the extending of the environment where the confrontation took place, and not at least, the diversification of technologies used during the confrontation. More and more obvious become the tendency to use the unconventional technologies (non-NBC), which also are soon adapted asymmetric or hybrid confrontation and less the classical. An increasingly obvious trend is the use of unconventional (non-NBC) technologies, which are also adapted rather to the asymmetric or hybrid confrontation and less to the classical military confrontation. In this tendency are also included some technologies which tend to be applied in areas such as modern means of transportation, concealment and camouflage systems, new types of armaments.

Keywords: unconventional technologies, transport, armaments.

Introduction

In recent decades, in the context of general aggravation of the conflicts generated by the access to fossil energy resources and the complete repositiong of the global balance of power, there is an avalanche of new technologies, seeking to use microelectronics and cybernetics, but also the use of some new physical principles which can allow the compaction, the reduction of costs and the increasing performances important in terms of increase of the volume of material/information which is conveyed and also the speed at which transportation is made. Of course, the military technique was the first beneficiary of all these improvements.

1. Modern means of transportation

In this area, there have been achieved a lot of developments, even if only some of them were disclosed. Of these improvements, we will present in this paper a series of technologies which, although invented long ago, only in the contemporary period (and perhaps in the future) they find the most important applications.

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1.1. The air-depression lifting force and the vacuum-propulsion

This is a technology based on the good use of the environmental factors potential energy which act in the lower layers of the atmosphere. Importantly, the potential energy of the dense atmosphere has the ability to be converted (under certain conditions) into kinetic energy, and this form of energy can be used to ensure the lifting force and/or propulsion of aerospace vehicles.

Almost a century ago, there were invented and experimented installations for blowing the boundary layer on the upper surface of wings, such as the devices invented by Henri Coandă[1]. These should be able to make a strong blow of the boundary layer and thus, to improve the conditions for the buoyancy forces, by means of a controlled movement of a fluid in a fluid environment, this principle being established by H. Coandă since 1932[2] and known as *the Coandă effect*.

Moreover, in certain conditions, there can be achieved even the vacuum in the region of the boundary layer, in which case the pressure difference is maximized between the extrados and the intrados of the wing, which results in making a large tensile force or lifting. In this area (the technology of air-depression for lifting force and propulsion) we can see that, at present, there are already used the so-called (internal and external) *Coandă-type ejectors* and also other applications[3] of some physical phenomena, using the principle that has been enshrined in the patent[4] which officially established what we call today *the Coandă effect*.

As regards the technique of *vacuum-propulsion*[5], important works have been performed by the inventors Rudolf Liciar and Viktor Schauberger. The applied technology is based on aerodynamics of porous surfaces, but also the technology of boundary layer absorption through porous surfaces[6]. Such technologies open the path to grow the performances not only of the classic aircrafts, but also to achieve vehicles able to travel by air and water, including in immersion.

Even since the period of the last World War, the Romanian inventor Nicolae Văideanu designed the hybrid device which he called *Udovil* and thereafter, the inventor Henri Coandă designed[7] a propulsion system for hybrid vehicles which used the absorption and discharge of water, but without using any classical external swing elements – such as the propeller – that cause shockwaves in the fluid, and therefore the signals that can be easily intercepted by the enemy sonar. Such hydro-propulsion system (according to Coandă) is composed of a water intake, an internal propeller with centrifugal action of the water, an annular chamber in which was accumulated the centrifuged water, an annular gap through which the water is ejected and an exterior wall profile compatible for the application of Coandă effect, so that the water jets which were blown through the annular gap to adhere to the wall external surface of the submarine vehicle, moving on this surface such as a wall flow, and due to the depression formed around the immersed body, the surrounding water was led to the body profile and therefore amplified the thrust. Such a hydro-propulsion system brings a number of major advantages:

• it is perfectly silent and undetectable by the sonar;

• the immersed body has a minimal drag because around it, there is created a depression in

[1] According to the patent US2052869 granted to Henri Coandă at 01.09.1936 for *Device for Deflecting a Stream of Elastic Fluid Projected into an Elastic Fluid*.

[2] According the patent FR762688 from 1934, requested in 1932, granted by Henri Coandă for *Procédé de propulsion dans un fluide*.

[3] For example, the patent GB431646 granted at 08.07.1935 to Henri Coandă for *Improvements in or relating to the propulsion of solid bodies in fluid media*.

[4] The patent FR792754 from 10.01.1936, granted to H. Coandă for *Procédé et dispositif pour faire dévier une veine de fluide pénétrant dans un autre fluideBrevetul*, similar to american patent US2052869.

[5] Lucian Ștefan Cozma, "The technology of vacuum-propulsion – concept and applications", in *Buletinul Academiei Forțelor Aeriene*, no. 3/2014, pp. 43-52.

[6] The author refers to one of the projects proposed by the Henri Coanda regarding the absorption of boundary layer at the leading edge of the wings using porous surfaces. Thus was achieved in the boundary layer a region of low pressure; of course, this does not directly connected with the vacuum-propulsion technology but is part of the technologies known as "air depression techniques".

[7] According the patent US2699644 for *Hidropropulsor* granted to H. Coandă at 18.01.1955.

the region of boundary layer;

• thus, there can be obtained higher speeds and also a consumption reduction;

• the water of the environment, instead of acting as an impediment by resisting the movement of the vehicle, will actively participate in its propulsion.

With respect to previous technologies presented in this paper, in the early 80s, there were a number of experimental models[8] in the USA that have attracted the attention by the atypical technologies which they applied. For example, there was proposed a model of supersonic aircraft fighter of VTOL type which had a wing with double-vertical stabilizer/ winglets, and a canard empennage endowed with deflector-flaps fitted with shutters and internal flow surfaces with the capacity to direct air jets toward the desired directions, the engine exhaust gases and also the air absorbed from the outside. During take-off, the pivoting empennages (which have in their structure the ducts for the gases taken from the jet engine exhaust and the steerable nozzles) were positioned vertically and the deflector-flaps directed the exhaust gases and the absorbed air, downward, towards the ground; but after the take-off, the empennages were designed so as they gradually pivoted horizontally, and the vehicle can thus accelerate horizontally to supersonic flight regime. This device with horizontal take-off and landing was designed by *Rockwell International* for US Navy aircraft carriers, thus trying to replace the dangerous launching systems and deck-arrestors which use the catapult with steel sandows devices, and the other systems used today by the aircraft carriers. This experimental aircraft had a hybrid system of deflector-flaps (for the air jets) placed on the entire wingspan and mixed with deflector-flaps for exhaust gases, at the wing tips being also devices type *winglet* which have each of them, a vertical stabilizer with a ventral extension, as a large ventral fin. This experimental apparatus had also tail assemblies of canard type. The application of these technologies opens the possibility to achieve the aircraft from

VTOL[9] category, but also the achieving of some outstanding flight performances, such as speed, low consumption, autonomy etc. On the over part, the military applications are obvious, both in the matter of common aircrafts but especially for aircrafts UAV type[10].

1.2. The magnetohydrodinamic propulsion (MHD)

The MHD propulsion is a modern technology based on the creation and acceleration of a plasma jet or a jet of hot gas which is intensely ionized, using externally applied magnetic field or using phenomena of self-generated magnetic fields inside plasma/ionized gas, possibly by the mixed action of an electric and a magnetic field. One of the most interesting technological solutions proposed was the ionization of the gas using the self-confinement (*pinch phenomenon[11]*) and accelerated the beam under the action of crossed electric and magnetic fields. It was also considered the use of Compton effect for gas ionization or the use of magnetic coils (made from quartz pipes filled with mercury) which are also strong emissive in the ultraviolet spectrum (UV-C[12]).

Such methods would provide a good plasma confinement, but also the complete ionization of the gases. By applying these technologies can be obtained aerospace propulsion systems for vehicles designed to work in the upper atmosphere and space, which are very important regions in terms of military applications.

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[8] The example in this paper is the experimental apparatus *Rockwell International XFV-12A*.

[9] VTOL is the acronym for *vertical take-off landing*, referring to the aircraft that have the capability to take-off and land vertically without requiring landscaped areas or taxiway spaces on the ground.

[10] UAV is the acronym for *unmanned aerial vehicle*, referring to the aircrafts (usually small) automatic or/and remotely controlled from the ground, therefore not manned.

[11] In the terminology of plasma physics, the term pinch refers to the phenomenon of self-confinement of plasma beam or a highly ionized gas, under the influence of its own magnetic field (internal) causing the decrease in diameter of the beam.

[12] The acronym UV-C designates the electromagnetic radiation of far ultraviolet spectrum, the wavelengths between 280-100 nm, with the photon energy of 4.43 to 6.20 eV.

1.3. The electrodynamic propulsion (electrokinetic)

This is a technology based mostly on using the environmental properties of the lower or upper atmosphere. It is envisaged that the working agent of the electrokinetic propulsion system is made up of electrons, ions and other particles that have electric charge. It is possible that the speed of the charged particles beam to reach relativistic levels and, in order to achieve such performances, there have been already proposed a variety of methods such as the use electrokinetic propulsion systems incorporated into the wall structure of the vehicle and acting on the atmosphere by creating a boundary layer which consists of ions and electrons that are accelerated using en electromagnetic field. It was also proposed the application of the so-called *electric wind* and the emergence of a directional force between the armatures of asymmetric capacitors[13].

1.4. Active surfaces and the simplified thrust vector control

These represent technologies designed to provide a better manual or automatic control of aerospace vehicles. The research started from the observation that gas deflector-flaps and the steerable nozzles (thrust vectoring technique in the modern aviation)[14] are solutions that raise a multitude of impediments. It was, therefore, proposed the use of flight control surfaces equipped with deflector-flaps and internal pipes for the air flowing through the interior of the fuselage structure or wings, including the use of devices for electrification and acceleration of the ionized fluid. Other considered solutions would be those relating to the use of plants containing fixed and steerable miniatural nozzles etc. Currently,

it is known the case of the most modern US military aircraft[15] that uses the thrust vectoring technique. But this technology is still far from having exhausted its resources, especially in the field of military applications.

1.5. The rocket engines using onboard Laser

This technology has emerged concurrently with the increasing power performances registered by the new types of lasers in the last decade. To a large extent, by creating and developing the so-called *free-electrons laser*[16], the power performance increased so much that one day become possible for the aerospace vehicle to embark the laser used for propulsion. Older projects for laser propulsion did not concern than propulsion systems with lasers situated on the ground or carried by different space or aerial vehicle than the vehicle which had the propulsion system powered by laser. At present, efforts are made to increase the degree of compaction of lasers and also to increase their power. Military applications include both the propulsion and weapons systems.

1.6. The rocket engines with atomic radicals

Expected by some authors[17] since the 50s, these types of rocket engines were later considered by other authors[18] as propulsion systems of the near future. These systems are based on use of the atomic radicals as a working agent. For example, the atomic radical of hydrogen (used in proportion of 100%) should afford an effective speed of 20600 m/s and if the atomic percentage of radicals should be less than 15% (the remaining

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[13] It is the so-called *Biefeld-Brown effect* based on the occurrence of a force of a certain direction and sense when applying high voltage on some capacitors which have asymmetrical armatures.

[14] The so-called *vector controls* (*thrust vectoring* in NATO terminology) are control systems based on vectorial composition of forces with different application points and senses; not to be confused with *vector control method of induction asynchronous motors*, unrelated with *vector controls* in aviation.

[15] Multirole military aircraft F-35 Lightning II (produced by Lockheed Martin Aeronautics companies, BAE Systems, Northrop Grumman) and F-22 Raptor (produced by Lockheed Martin and Boeing- companies Defense, Space & Security), both of which having *thrust vectoring* systems.

[16] Enshrined in the scientific literature as *FEL*, meaning *the free electron laser*.

[17] K.A. Ghilzin, *Motoare rachetă*, Editura Tehnică, București, 1950, pp. 80-83.

[18] Robert L. Forward, *Alternate Propulsion Energy Sources Final Report*, AFRPL TR-83-067, dec. 1983.

85% being normal molecular hydrogen) still could be obtained 7300 m/s, while the atomic liquid hydrogen-oxygen mixture would allow the achieving of the effective speed of 4600 m/s (469 s. specific impulse). The aircraft engineer Robert L. Forward (1983) calculated that, in the case of use of hydrogen in the solid state (cryogenic), but containing atomic radicals at a rate of only 15% could be obtained an effective speed (in vacuum) of 39240 m/s, a thrust of 73900 Newtons (approx. 7536 kgf), in the case where the specific energy of hydrogen radicals (218 MJ/kg) produces, in theory, a specific impulse of 2130 sec. A big obstacle is that the state of atomic radical is very unstable, the radicals tend almost instantly to make the atomic reassociation. Another technological solution proposed was to obtain the atomic oxygen or ozone and the use of the fuel mixture consisting of atomic hydrogen and ozone. The military applications have regard to aerospace vehicles and intercontinental missiles, including the military satellites and the orbital launchers.

1.7. The optimization of the chemical rocket engine

The military research and development works have sought to considerably improve the performances of the chemical rocket engine, in this regard being proposed a series of possible technological solutions:

• simplifying the supply system by using a single working agent which have to be as inexpensive as possible, well preservable, non-inflammable, non-toxic, non-corrosive or hazardous to handle;

• the use for combustion of metal hydrides and multicomponent fuel mixtures[19] containing suspended nanopowders (aluminum, beryllium, magnesium) and metal hydrides;

• the use of air-depression Coandă ejectors and of the injection installations also based on the Coandă effect, operating in the scheme of the adjustable nozzle to achieve the controllable detente of the gases and even their complete combustion etc.

1.8. The optimization of the hot air baloon

In the last decade, there were done researches in this area where the improvement of the balloon could open a series of exciting prospects for military applications:

• the achieving of an economic aircraft, simple, light (can be easily packed and transported), difficult to detect by the radar, capable of flying at high altitudes, where it can maintain for long journeys;

• the manufacture of automatic machines able to fly at different regimes of speed and altitude, but without requiring the fitting with heavy and expensive propulsion systems;

• the development of some aerospace vehicles easily to be camouflaged by using nanofibres with special properties.

Such devices could be improved for special missions: to infiltrate in the upper atmosphere wearing a lightweight payload, but having the ability to remain in the layers of the upper atmosphere for a long time and having also the ability to constantly replenish its power plants with energy captured from external sources (especially from the Sun); to launch microsatellites on the low Earth orbit. Some quasi-classical space launch systems (with conventional balloons) were proposed and even experienced, for instance, by the Japanese space agency JAXA[20] and the American company JP Aerospace[21].

1.9. The sonic engine and other applications of sonicity

The applications of the Sonicity in the matter of propulsion and combat technique are for more than a century, undeniable[22]. The principles of Sonicity allow the rapid heating of an fluid with low energy costs and also the achieving of high performance transmission mechanisms.

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[19] Gavril Maloş, Marius Ovidiu Mândrican, *De la superso-nic... spre viteza luminii*, Editura Tehnică, Bucureşti, 1991, pp. 103-105.

[20] Additional information can be found at the official web page of *Japanese Space Agency* at http://global.jaxa.jp/projects/sas/balloon/, accessed on12.05.2015.

[21] Additional information can be found at the official web page of the american society *JP Aerospace*, at http://www.jpaerospace.com/, accesed at 11.05.2015.

[22] Nicolae P. Constantinescu, *Enciclopedia Invenţiunilor Tehnice*, Editura Fundaţiei Regale Carol al II-lea, Bucureşti, 1939, vol. 1, pp. 253-283.

Regarding the direct applications in the field of armaments, noteworthy is the conducted sonic cannon made and tested by G. Constantinescu during the First World War period: the explosion of the gun powder contained by an ordinary pistol cartridge was used by the sonic cannon that can throw perfectly silent a 500 kg projectile at a distance of 1500 meters. Moreover, since the 90s, the american company Brunswick Corporation[23] realized the ROW[24] grenade launcher, of 140 mm caliber, which is able to launch a projectile of 4.5 kg (1.26 kg load) at a distance of 2000 m, recoilless, using a single normal cartridge of 5.56 x 45 mm, from the M-16 assault rifle.

1.10. The electrothermal air-jet engines

The electrothermal air-jets are propulsion systems based, most often, on the use of microwaves and the air as working agent. They are considered as propulsion systems designed to be used inside the dense Earth atmosphere, and they are characterized by the relatively low thermal mark and a completely clean (ecological) functioning, without requiring the transportation (embarking and storage) of any kind of fuel[25]. Also, the electrothermal jet-engines are very silent. Such propulsion systems were invented since the second half of last Century[26], but significant results were communicated more recently by some authors[27] all relatively recent,

being obtained some patents[28] in this area. The military applications are obvious, the military technique being directly concerned by these improvements.

1.11. Aerospace vehicles equipped with orientation/ stabilizer systems (using high-pressure steams or flue gases) and special aerodynamic cells equipped with internal flow systems (through the fuselage and wings) with deflector systems, blowing slots or devices for boundary layer absorption

Such of military aerospace vehicles are designed to work primarily within dense atmosphere, being capable of slow take-off/ vertical landing in very economical conditions without causing a thermal or radar mark etc.

1.12. The MHD rocket engine with Z-Pinch coaxial detonator and transient wave accelerator

This is a propulsion system for military aerospace vehicles which fly in the upper atmosphere at very high speeds, enabling them to cross very fast long distances at speeds in hypersonic regime, where operating speed of the engine can be between 1500 and 75000 Km/ sec, depending on the accelerator type which is used. In recent years, there were reported[29]

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[23] The American society *Brunswick Corporation* was founded in 1845 and has its headquarters north of Chicago, Illinois.

[24] The portable weapon system *Rifleman's Arms Assault Weapon* (RAW) is a grenade launcher attached to the muzzle of the assault rifle M-16, but without hindering the normal ammunition shooting. The project occurred since 1977, but entered into production and service only in the 90s.

[25] The *fuel* is generally *any mixture that can feed a carburetor* (Scriban Dictionary, 1939) or more precisely *the liquid fuel used in internal combustion engines* (Dictionary of Neologisms, 1986) or particularly, *a volatile liquid fuel which, when mixed with air, is used to power internal combustion engines* (according to the New Explanatory Dictionary of the Romanian Language, NODEX, 2002).

[26] For example, the American patent US3083528 at 02.04.1963, granted to W. Brown for *Microwave engines*.

[27] Kevin Parkin, director of Mission Design Center (NASA-Ames), *The Microwave Thermal Thruster Concept*, in *Beamed Energy Propulsion: Second International Symposium on Beamed Energy Propulsion*, edited by K.

Komurasaki, American Institute of Physics, 2004; David D. Murakami, Kevin L. Parkin, *An Overview of the NASA Ames Millimeter-Wave Thermal Launch System*, NASA Ames Research Center, Moffett Field, 2012.

[28] For example, the patent US6993898 granted to K. Parkin in 07.02.2006 for *Microwave heat exchange thruster*.

[29] For more details, see the scientific reports published in the online electronic magazine *Next Big Future*:
- elaborated by a team of researchers from the University of Alabama, Department of Mechanical Engineering and Space in Huntsville, the article *NASA working on lightweight Z-pinch and Dense plasma focus Pulsed Nuclear Fusion Propulsion Feasability Tests*, URL: http://nextbigfuture.com/2012/06/nasa-working-on-lightweight-z-pinch-and.html, accessed at 12.05.2015;
-from the same authors, the article *Zpinch Nuclear Fusion Pulse Space Propulsion Research*, URL: http://nextbigfuture.com/2012/10/zpinch-nuclear-fusion-pulse-space.html, accesed at 12.05.2015;
- developed by the editorial staff of the electronic magazine *Next Big Future*, article „*Fusion Propulsion Z-Pinch Engine Concept*", URL: http://nextbigfuture.com/2012/10/

more notable achievements, also recently being developed an interesting scientific report[30] in this area. It is expected that this technology shall gain important applications in the military field, along with the tendency of the war theater to be placed much more in space than on the ground, also the tendency to use more and more the vehicles designed for high speed and altitude.

1.13. The economical orbital launcher

Having regard on the growing importance of the space component in the confrontation of the modern warfare, to improve the means for access to near outer space is one of the major directions of development. Thus, there were sought technological solutions more simple and more economical to achieve the orbital launchers. In this respect, it drew attention to three types of technological solutions: the hybrid launchers that do not require the classic heavy and expensive launch infrastructure; the airborne launchers, which take-off from the aircraft carriers in the stratosphere; the complex launch systems based on the ground and designed to ensure a good acceleration (e.g. electromagnetic rail accelerators) of the vehicle before it leaves the launch pad.

In the category of hybrid launchers, we can remember an older but still interesting project: that of *Neptune* pyramid rocket designed by the German experts under the leadership of Heinz Hermann Koelle[31]. It was a very unusual rocket, pyramidal, that could be launched from a simple framework (thus, eliminating the expensive classic launch pad) and, optimally, this framework was floating, so the launch was made on the water.

This consisted of a self-propelled navigable platform able to move virtually anywhere on the Planetary Ocean. Such a platform can be equipped, according to a first embodiment, with a high voltage generator which may be powered by a nuclear battery (with radioisotopes). The high voltage thus obtained could be used to supply directly some types of electrostatic motors. Such kinetic force may act on homopolar generators capable to make available very strong currents, which supply the electrolysers where the electrolyte is the sea water and, thus, they produce hydrogen and oxygen. These gases are firstly liquefied using a Joule-Thomson plant and the liquefied gases are stored on board of maritime platform. In another embodiment, it was preferably used the environmental energy to drive the homopolar generators. The project of *Neptune* hybrid orbital launcher was proposed by a group of researchers from the Technical University of Berlin (FRG), but in their presentation gave no information about the launching platform, stating instead that the rocket was 69 meters high with a side of the base approx. 65 meters, the shape of a hexagonal pyramid, with two stages[32]. Such orbital launcher was fully recoverable, having a resistance structure much simpler and light than any other classical rocket. At its base were arranged the fuel tanks for both stages of the rocket. It was provided the use of multiple rocket engines of small size, with an ingenious supply and cooling installation, eliminating the classic scheme of turbopumps.

Another interesting technology has been proposed since the middle of the '80s by a

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fusion-propulsion-z-pinch-engine-concept.html, accessed at 10.05.2015;

-Idem, the article „*Updating Project Orion: External Pulsed Plasma Propulsion*", URL: http://nextbigfuture.com/2007/07/updating-project-orion-external-pulsed.html, accessed on 10.05.2015.

[30] J. Miernik, G. Statham, L. Fabisinski, C. D. Maples, R. Adams, T. Polsgrove, S. Fincher, J. Cassibry, R. Cortez, M. Turner, T. Percy, *Fusion propulsion z-pinch engine concept*, SAIC Advanced Concepts Office, Marshall Space Flight Center, 2013.

[31] *Heinz-Hermann Koelle* (1925-2011) was an aircraft engineer who during the preparation of the Apollo space program has made preliminary design of *Saturn* rocket. He worked in the team of the German scientist Wernher von Braun and into the *Ballistic Missile Army Agency* (ABMA), part of the team that made the satellite *Explorer 1* (the first US satellite) and later occupied important positions in the

Marshall Space Flight Center during the Apollo lunar program. Since 1965, he becomes the holder of *Space Technology Department* of the *Technical University of Berlin* (FRG).

[32] More details can be found on the website of the German electronic scientific journal *Monstermachine*, article "*Transporting heavy duty to the Moon*", URL: https://monstermaschine.wordpress.com/2012/07/30/transporting-heavy-duty-to-the-moon/, accessed on 30.05.2015.

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number of American engineers[33]. They proposed the creation of an inclined metal ramp, 2000 meters high, bearing the magnetic rails of a catapult with magnetic levitation (Maglev[34]), being able to accelerate the orbital vehicle up to approx. 630 km/h before it leaves the launch pad. The magnetic ramp was designed to have a total length of 5500 meters, of which 3000 meters were constituted by a ramp with a small degree of tilt, followed by another ramp inclined at 72^0 with a length of 2500 meters, climbing up to 2100 meters high. This platform with the accelerating magnetic trampoline was designed to consume almost nothing, the supply being made by solar energy, in a situation where the solar collector was integrated in the infrastructure of the trampoline and it had a size of 60 x 80 meters. Basically, within a period of 15 days, the supply system accumulated the necessary energy of 26000 Kw/h. The acceleration on the ramp was achieved using linear motors (the magnetic trains already used that technique), the orbital launcher accelerating until reaching the height of 1600 meters at a speed of 630 Km/h, at which point it finally ignited the rocket engines, but at a reduced thrust regime. Worthy to note that the method of using a trampoline as a launch pad, however has its origins in the German technology used to launch the aircraft-missiles *V-1*. Thus, catapulting the (aero)space vehicle is, ultimately, a method of acceleration, so that when leaving the launch pad the vehicle must already have an important initial speed, but without using its own means of propulsion. More recent projects[35] relate to the use of vacuum tunnels for catapulting the space launcher. Such a launch system is composed of a vacuum tube, equipped inside with a magnetic rail, which may be built inside the mountain massifs, vertically, or at a very steep angle. Unfortunately, to be truly effective, it would require the length of at least 5-6 km, which means a big investment

in infrastructure. A very good magnetic catapult using a vacuum tunnel should have the length of approx. 200 km (!) and, out of the accelerator, the launched vehicle would have a speed of 5000 m/sec, i.e. 0.6258 from the first cosmic speed. At a such speed, the friction with the atmosphere leads to a very high release of energy as heat, which requires the adoption of an appropriate anti-thermal protection, possibly by using of high intensity (electro)magnetic fields.

2. Electromagnetic means for anti-radar concealment

While the developing of propulsion systems used in military technique, special efforts were made for the achievement of concealment (masking) means of own fighting equipment against the research and identification systems used by the enemy. From the tendencies of modern technological evolution, we consider relevant the quantum rocket engine used also as a mean of masking anti-radar. It is a system based mainly on electron emissions, but also accelerated beams of electrons, the use of the Compton effect etc. Typically, this propulsion and masking system is integrated even in the structure (wall) of the aerospace vehicle, producing an electromagnetic field in the region of boundary layer and thus accelerating the charged particles which are all around the aircraft.

Theoretically, it is possible that such a device to achieve high flight speeds without the outer surface of the vehicle to come into contact with the particles (gases) of the environment (atmosphere). Such aircraft has already been experienced by the US in the so-called HIMAT[36] research Project, although the military research was much more ample including, among others, objectives such as:

• designing of aircrafts which could have not a rigid, but a flexible structure;

• the use of special materials and structures such that the aircraft can operate under magnetohydrodynamic and electrodynamic regime, including the using of special

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[33] Such as James R. Powell, George Maise, John C. Mankins, Gordon Danby etc.

[34] *Maglev*, means *magnetic levitation*, referring to the lifting and propulsion method based on the interaction of magnetic fields.

[35] Marshall T. Savage, *Proiectul Millenium*, Editura Elit-Comentator, Ploieşti, 1997, pp. 97-125.

[36] HIMAT is the acronym for the syntagma *high maneuvrable aircraft technology*.

envelopes capable of emitting the kinetic (high speed) electrons[37] (radiation β -). In fact, the electroemisive envelopes for aircraft were first proposed since 1910 by the Romanian inventor Vasile Dimitrescu[38];

• the development of aircrafts with thrust vectoring technique capable of directing in any direction the jets exhausted from the propulsion system;

• to create aircrafts capable of slow vertical take-off/landing without requiring an aerodrome or otherwise landscaped spaces, ground installations etc.;

• producing integrated system within the aerodynamic cell structure, in order to achieve the radar invisibility and even optical invisibility (eg holographic techniques) so that the aircraft can not be seen even if it is daytime and it is in a low altitude flight.

Last but not least, in the scientific community, there is discussed the possibility of shielding the gravitational field[39], but also to achieve the artificial gravitational fields with optional direction of application, so that the aircraft can execute any flight maneuvers, even those impossible in the normal gravity field, such as when the aircraft takes a corner at full speed, the sudden accelerations and decelerations etc. The flying apparatuses from HIMAT[40] Project were provided, inter alia, with electronized instrument panel fitted with video equipment which display the images from outside and digital controls, eventually including the neural commands (sensor systems mounted on the skin, especially on the head, to take the electrical signals from the brain), which decrypts the commands sent by the brain of the pilot. These orders are then executed directly by equipment onboard, without the pilot to be forced to use his hands or feet; canard tail assemblies designed to amplify[41] the airflow which reach the wings and thus improves the flight controls. Besides this electronized instrument panel, this type of experimental flying apparatus was equipped with the following: a) variable geometry wings which have segments able to change automatically the sweep angle, the dihedral angle and the angle of attack; b) variable geometry wings capable to have a very pronounced negative sweep angle, but also with the ability to self-regulate this operation and therefore its aerodynamic parameters; c) fins (ailerons, spoilers, slats, winglets, ventral fins etc.) designed to increase the flight stability, to decrease the drag and increase the lifting force; d) double-vertical stabilizers intended to provide a good stability and a good directional maneuverability of the aircraft; e) steerable nozzle type slot, with the possibility of achieving thrust vectoring, capable of being positioned at least at an angle of 20° up and down; f) gasodynamic deflector flaps mainly used during the aerial combat, to achieve sudden changes of direction and braking during flight evolutions etc.

Also, since the mid '80s of last century there were made public a number of other technologies that have been tested, such as, for example, the LRIPP[42], which was an aircraft for infiltration, characterized by a very low radar and infrared mark. Basically, it represented since the '70s a model of transition from the conventional technology of aircrafts type delta flying wing (made by the German during the interwar period and also improved by Germans, between 1943 and 1945 for military applications) and the modern magnetohydrodynamic/ electrodynamic technologies.

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[37] The syntagma *kinetic electrons* means the electronic emission that consists of electrons of relativistic velocity, hence the high energy of the particles; also known as "radiation β -" (*minus beta*).

[38] According the patent RO1789/07.05.1910.

[39] We mention that until now there is no scientific evidence or reliable information on the possibility of making such a shielding of gravitational field. However, the hypothesis is still subject to debate for scientists.

[40] Research Programe of NASA (SUA) titled *Highly Maneuverable Aircraft Technology* (HiMAT) held from 1979 to 1983.

[41] The author refers in this case at some of the benefits (aerodynamic) of *canard type* of aircraft controls (placed at the leading edge of the fuselage, before the wings), otherwise, currently used of some types of aircrafts.

[42] LRIPP is the acronym for the syntagma *Low Radar and Infrared Profile Penetrator*.

Currently, the MHD[43] aircrafts could be able[44] to fly at hypersonic speed even in relatively dense atmosphere (between 20 and 35 kilometers) because they do not have direct contact with the air, but they could move surrounded by a boundary layer of vacuum which is formed around them by the action of ionizing electromagnetic field on the particles of air. Such aircraft could create around it a bright halo (because the ionized particles and the plasma cloud formed all around the fuselage), having the ability to fly absolutely silent even at high speed. According the existing knowledge to date, a flying machine, which is in subsonic flight regime, forms around it turbulent airstreams and when it reaches the speed of sound, around and behind the flying vehicle a shock wave arises. After exceeding the speed of sound, the shock wave is detached from the vehicle, and the so-called *sonic bang* occurs. As the aircraft approaches the speed of sound, the shock waves become compressed before it giving the impression of an invisible wall that seems to hit the aircraft: *the sonic wall*. But the aircrafts based on the magnetohydrodynamic (MHD) and electrokinetic technologies do not form such shock waves[45] around or behind them, the ionized airstreams having a sheet flowing around the MHD vehicle. Therefore, its flight is perfectly silent, even if it flies with supersonic or hypersonic speed. However, the boundary layer of ionized gas around it protects the aircraft against radar emissions too. Unfortunately, at present, the information released by the states which experiment such technologies are very

few. Therefore, solely based on some theoretical analysis (fundamental physics, but also technique), we can only estimate the achieved level of that technology.

3. Special weaponry

As expected, the modern vehicles with military purposes, equipped with non-conventional propulsion systems are not likely to be equipped with the conventional onboard weaponry. That is why one of the special directions of research has been directed towards the establishment and the development of the appropriate technologies for the onboard special weapon systems. According to our analysis to date, between the results of this research were some applicable technologies, which might materialize as the following types of aircraft onboard weapons systems: a) weapons designed to use the *smart ammunition* (self-guided and self-propelled projectiles capable of acting under conditions of increased autonomy, also UAV having onboard weapons and capable of completely autonomous action during the fight); b) *electromagnetic pulse cannon* (weapons capable of generating guided electromagnetic impulses, in order to destroy the targets, particularly, the electrical and electronic equipment); c) *compression effect gun* or *plasma cannon* (weapons capable of use the self-confinement phenomena within the plasma, generated by high-intensity discharge and/or compression phenomena generated by the high intensity magnetic fields that are formed around hot plasmas; the shock wave formed as a secondary effect can be used, for example, for launching a projectile); d) the *electromagnetic cannon* with *traveling magnetic field* (also called *coil-gun* or *rail-gun* in the scientific literature[46],[47] and based on shooting of special projectiles with extremely high speeds when those are subjected

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[43] MHD is the acronym for *magnetohydrodynamics*, a scientific discipline having as object to describe the behavior of electrically conductive fluids (liquids, ionized gases, plasma) when they are located in (or subjected to) electromagnetic fields.

[44] The statement is made based on the scientific research *results that were released*, however, there were not released any evidences obtained from experimental flights.

[45] For the aircraft equipped with MHD envelope, the air streams not reach virtually in contact with the aircraft surface, the gases from air composition being ionized (usually by applying an sufficiently intense electric field) and then driven under the influence of a magnetic field created around the aircraft. The laminar flowing of the ionized gas streams comply in this case to the laws of *magnetohydro-dynamics*.

[46] H. H. Woodson, M. D. Driga, W. F. Weldon, *Recoil in electromagnetic railguns*, Third Symposium on Electromagnetic Launch Technology, Austin, 20-24 aprilie 1986, IEEE Transactions on Magnetics, vol. 22, no. 6, Nov. 1986, pp. 1808-1811.

[47] Ian R. McNab, *Launch to Space With an Electromagnetic Railgun*, IEEE Transactions on magnetics, vol. 39, no. 1, Jan. 2003, p. 295.

to a magnetic field rapidly variable); e) *cannon with mechanical waves* using infrasonic or ultrasonic[48] waves (weapon using mechanical waves of very low or very high frequency beyond the audible range and which can develop high energy, primarily intended to destroy the fortified buildings when the targets are located within a short distance from it); f) *cannon using shock wave* (weapon designed to produce an use the mechanical shock wave which is guided to produce the target destruction); g) *high power pulsed laser sources* (laser sources considered capable of emitting beams of high power, i.e. those able to deliver high energy pulses of nano- or picoseconds; also, it is of interest the improvement of high power laser sources with continuous operation such as the free electron laser); h) cannons which use focused and guided beams of charged particles (weapons that emit beams of charged particles which interact directly with the target) etc.

According the purposes and usability, there may be many more lines of development for the special weapons technology, than those listed here only as an example. The development of these weapon systems raises technological problems not simple, like for example: establishing and obtaining the necessary special materials, designing power plants (including the new working agent and cooling medium), to use new physical principles (eg, the electrostatic cooling), to ensure the power supply for the which require special parameters (for example, the magnetic accelerators), special design concept for the projectiles intended to act at very high speed etc.

Conclusions

Due to the very accelerated development of technologies in recent years, the results of research and development in the military are more and more unexpected and they have an increasingly rapid evolution. The emergence of new technologies is a far more serious challenge that rises to the military researchers all other the World, while the physiognomy, content and dynamics of warfare are changing at a rapid pace, forcing the adaptation of theoretical component of military art, a continuous review of strategic visions and a more radical content of those. Therefore, the military researchers have the duty, through their analysis, to try permanently to maintain this pace of strategic adaptation and completion of military science in relation with the increasingly rapid and surprising developments of the modern world. One of these is technological development.

Strictly from this perspective, in our opinion, it is noted that there is a need to forecast correctly the results of the technological development, thus trying to find its possible results before they are made public. Therefore, we consider that among the possible research directions with military relevance are the following: *the capture and controlled discharge of atmospheric electricity*; *the air depression transport system of Coandă type* (in tubes); *propeller and turbine equipment without mechanical contact, using magnetic levitation*; *the aerodynamics of pyramid and discoidal flying structures*; *special applications in military technique of the magnetic fluids* (liquid magnets); *the achieving of improved electrochemical sources* (compacted but with high capacity); power plants based on the magnetic energy conversion etc. It seems therefore that it is necessary, under the influence of the so-called *Revolution in Military Affairs*[49] (process started just because of the increasingly rapid and unpredictable technological developments) the military research must provide periodically general or special analysis on recent technological developments, therefore introducing the results into *the strategic studies* and comparing them *to the theoretical component of military science*, to be finally able to adapt correctly and in a timely manner *the components of military art* and *the strategic visions*.

[48] For further details, Lucian Ştefan Cozma, "*Some considerations on the use of infrasound/ultrasound generator in infantry weapons*", in *Military Science Universe* Conference Proceedings, vol. 2 – *Defense Studies, Geopolitics and Military Strategy*, "Carol I" National Defence University, Bucureşti, 14-15 April 2011, pp. 330-357.

[49] *Revolution in Military Affairs* (RMA) is an American concept in the theory of military science, which (among others) try to link the military phenomenon closely to that of the technological evolution.

Therefore, in our opinion, it is necessary that among the tasks entrusted to military researchers, to be also the mission of making a permanent and correct forecast of the results of technological development and also to anticipate development tendencies. It is also appropriate that the results of these analyzes should be disseminated and used in the decision making processes.

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12. SAVAGE, Marshall T., *Proiectul Millenium*, Editura Elit-Comentator, Ploieşti, 1997.

GENDER EQUALITY – A CONDITION FOR ACHIEVING HUMAN SECURITY

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Humanity, since ancient times, has known rivalries and contradictions related to the temptation of the power to dominate. Human security is jeopardized by the degrading, inhuman actions made by people around us. The concept of today human security knows a new dimension, gender equal opportunities, without ruling out classical dangers and threats. Equality is based on ensuring full participation of all persons to economic and social life, irrespective of ethnic origin, gender, religion, age, disability or sexual orientation.

Inevitably, when we talk about equal opportunities, unfortunately, there emerges the phenomenon of discrimination and social conduct. Discrimination is, in fact, one of the reasons why equality is not respected as a guiding principle. We believe that the oldest and most widespread form of discrimination is gender discrimination. In this regard, this paper aims to make an inventory of the main differences in cultural stereotypes that promote gender diversity, discriminating different social roles of women compared to men, which may be generating human insecurity.

Keywords: *prejudices, stereotypes, gender equal opportunities, non-discrimination, change, security and peace.*

1. About prejudices, stereotypes and marginalization

Beyond the wealth of the most courageous imaginations of previous generations, the world has entered 21st century, which brought with it poverty and inequality[1]. When we discuss about men and women, our world is marked by stereotypes and prejudices.

Discrimination occurs as a result of misconceptions. Prejudice triggers unjustified behaviors which may take various common forms in everyday life: avoidance, segregation and even violence. All these actions demonstrate a lack of information and are based on males being labeled *as the stronger sex* who, because of the physical force (of anatomical and hormonal nature) should and has the right to dominate the *weaker sex*, namely women.

Human being is born free and the society has an obligation to respect and protect human freedom. Equality is the premise of human unity. This is one of the conditions of immanent justice, freedom and peace. Human security has become a key objective of the international community and people − regardless of gender, religion, political affiliation, ethnicity − need, in order to survive, a living environment that is based on respect for human rights.

During human evolution, women held various roles and statuses in the society and in the family. Even if women in developed societies share common problems with men[2], in some regions of the world, they do not enjoy any rights and are

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[1] Alex Callinicos, Equality. Poverty and inequality in developed economies, Antet Publisher, Prahova, 2001, p. 5.
[2] Oana Băluţă, Alina Dragole, Alice Iancu, Gender and political interests. Theories and Practice, Polirom, Iaşi, 2007, pp. 19.

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considered to be the property of men.

In the name of religion and of a false protection, in certain countries, women are still forbidden to access some social services (education, health). For example, in Afghanistan, girls are not allowed to go to school once they reach puberty, therefore only 18% of young girls know how to read (the government cannot guarantee their physical safety in school), in Saudi Arabia women are not allowed to drive a car or ride a bicycle.

In many countries (such as Bahrain, Saudi Arabia, Libya and Egypt), women do not have equal rights with man when it comes to divorce. Women must go through financial and legal obstacles which are insurmountable. Women abused by their husbands in Lebanon, cannot apply for divorce or abuse if there is not an eyewitness to confirm that she was beaten (a medical certificate to support physical abuse is not sufficient). Without a specific cause, in Egypt, the woman who is divorcing her husband must renounce any rights on material goods and also the dowry received marriage.

In Japan, the *reproduction pressure* is increasing the level of stress on the young women at a fertile age. For those women who cannot or do not want to have children, the government and society pressure is overwhelming. Thus, different organizations of civil society are fighting for women to be educated concerning their rights and options, giving them the possibility to make decision in full awareness.

Unfortunately, not even in the contemporary period, we did not get rid of the prejudices concerning the position of women in society. We can state that discrimination against women occurs even before their birth, because in some regions of the world, appearance in the world of female children is decided in the family or community. According to a research made by the Centre for Women's Development Studies from New Delhi, ten million female fetuses have been aborted in India between 1978-1998, and another five millions from 1994, since this procedure was forbidden, but informally, it seems to still be practiced[3]. Since intrauterine life, according

to the sex of the fetus, there are established rules that the family must comply with at birth. Even in modern societies, there are preconceived ideas about what it fits or not, depending on the sex. For instance, the pink color is determined to be suitable only for baby girls, while blue is for boys. The same rules concerning the colors are applied for the interior design.

In many cases, school doesn't eliminate these prejudices, moreover it emphasizes them. For males, society has reserved certain professions like engineers, mechanics, policemen, while females are considered better suitable for certain profession like teacher, nurse, sociologist and secretary. According to statistics published by *Ziarul Financiar* (Financial Journal), in 2008, out of women in managing positions, 70% acted in the services sector, while only 30% in technical branches.

Also, statistics show the top of positions occupied by women: advertising (65% women - 35% men) PR (95% women - 5% men), human resources (80% women - 20% men), health (55% women - 45% men), marketing (75% women - 25% men), architecture (75% women - 25% men), design (70% women - 30% men), finance (55% women - 45% men), marketing research (60% women - 40% men).

In technical fields, which involve a procedural work environment − men prevail (80% men - 20% women), since it is considered that women are more delicate and less attracted to such an environment. Examples: ICT (90% men - 10% women), industrial (80% men - 20% women), construction (90% men - 10% women), transportation (90% men - 10% women)[4]. However, throughout the history of human society evolution, despite all the obstacles imposed by religion, politics and habits, women have managed to overcome and excel in areas considered exclusively for male or totally banned them.

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[3] Scott Baldauf, India's "girl deficit" deepest among educated, January 16, 2006, URL: http://faculty.polytechnic.org/gfeldmeth/indiagirl.html, accessed on 12.03.2015.

[4] Alina Botezatu, "Specialist advice: Men vs. Women", *Ziarul Financiar*, online edition, April 7, 2008, URL: http://www.zf.ro/profesii/sfatul-specialistului-barbati-versus-femei-3097649 accessed on 05/27/2015.

Women like Susan B. Anthony and Elizabeth Cady Stanton founded the National American Woman Suffrage Association Census, through which they promoted women rights all over the United States territory.

According to a census made in 2000 in the United States, women are *almost* equal to men in education and other areas, the percentage of women who obtained bachelor's degree was 23.7 percent, compared with 27.5 percent in men[5].

With the adoption of the Amendment of the Constitution 19th 1920, the United States women received the right to vote. Women are respected and are offered "the same opportunities as men; good education and jobs"[6].

In contrast, in China, women are treated differently because of Chinese traditions, laws concerning equality in education, marriage and freedoms that women have gained are ignored. Because of Confucian tradition, boys have always been appreciated more than girls. Boys carry on the family name, they are considered superior to girls, receive higher wages, thus providing security for parents in old age. Women and children trafficking as well as domestic violence are still common.

In conclusion, in developed countries, women have been encouraged by civil society to take over activities that only men engaged in previously and enjoyed legislative and moral support, but in certain regions of the globe, they had to find alternative ways to express themselves and to make known the discrimination that they are facing in public space.

2. Women evolution in the society

It is difficult to establish how the relationships and social organization of human society were at the beginnings. There is no evidence at that time, but only assumptions. Early matriarch was characterized by full equality of the sexes. Woman makes her presence felt in organisation forms such as family related by blood and gens,

and the developed matriarchy places her in a dominant position to man.

On the other hand, patriarchy is based on the idea that man is the one who must lead by placing the woman in the background. He is considered the head of the family, with authority over women and children. Financial dependence of women to man has increased due to the placement of woman in the household.

The moment that the woman was considered to be "the weaker sex" (imbecilitas sexus), without rights and identity, reduced to the role of "slave", is considered to be the milestone of inequality between the sexes.

Consisting mainly in celibate men, the church, in the Middle Ages, imposed to women an inferior image. The renaissance marks the beginning of women's empowerment through decentralization of authority and recognizing the right of management of personal wealth.

Communism has displayed a formal equality, we can discuss about a *state patriarchy*[7]. The woman is no longer dependent on man, becomes dependent, just as man, on the state. The communist period brings the concept of *heroine mothers, working, selfless and self-sacrifice mothers* . The communist regime promoted the women in politics and production.

The current trend has manifested more clearly the division of roles in the family, the involvement of women in society increased more and more. The woman in modern society is the product of hundreds of years fighting for emancipation. Access to education and increasing education levels of women led to reducing gender discrimination and enabled women to be employed in the labor market in different areas.

Depending on the religion which women belongs, she is perceived differently. In Orthodoxy, the woman bears the burden of original sin and is considered inferior. According to orthodoxy customs, women do not have access to the altar, are not allowed to occupy function

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5 U.a., "Equality of Chances in United States of America", URL: https://discriminareafemeilor.wordpress.com/2011/11/05/usa/, accessed on 27/05/2015.

6 Ibidem.

7 Mihaela Miroiu, Patriarchy faces: The Case of Eastern Europe university education within the Research Seminar of Religions and Ideologies, 2002, URL: http://www.jsri.ro/old/html%20version/index/no_3/mihaela_miroiu-articol.htm, accesed on 26.05.2015.

in the church. In Catholicism, it is almost the same, with some exceptions woman can enter in the altar and can read the scriptures. In Protestant religion, women are priestesses, which entitle us to say, compared with the above, that in this religion woman occupies a superior status.

Islam considers an axiomatic truth that men are stronger than women, not only physically, but also mentally and morally. Therefore, women need protection and guidance of men.

The above analysis leads us to affirm that, socially, women's rights have evolved more slowly than men. Despite the roles held in the society and the image created in various religions, women have not chosen isolation, but continued to fight for emancipation, equality and freedom.

3. Gender equality and gender discrimination problems

We cannot choose our family, gender nor the place and time that we appear in this world, but we can exercise our rights according to national and international law. Article 1 of the Universal Declaration of Human Rights stipulates that: "All human beings are born free and equal in dignity and rights" and in Article 3: "everyone has the right to life, liberty and security of person"[8].

Rights, fundamental freedoms and duties of citizens, as part of constitutional law, are contained in the Constitution of each state. There appears the inevitable question: why did this situation occur, if we are born equal?

Article 4. par. (2) of the Constitution stipulates that: "Romania is the common and indivisible homeland of all its citizens, irrespective of race, nationality, ethnic origin, language, religion, sex, opinion, political affiliation, wealth or social constitutional origin"[9].

The problem of gender and gender equality was treated both by international regulations, at EU and UN level. All have as central idea the dignity and integrity of women, including end of gender violence linked to traditions and customs. Making a connection between concepts, can say that *gender equality* is the right for any individual is to develop skills, to express their point of view regardless of sex. Failing to comply with this natural law is a violation of human rights.

The United Nations Charter, in Article 1. (3), points out that one of the goals of this organization is "To achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character, and in promoting and encouraging respect for human rights and for fundamental freedoms for all without distinction as to race, sex, language, or religion"[10].

Moreover, the Universal Declaration of Human Rights, the International Convention on Civil and Political Rights and the International Convention on Economic, Social and Cultural stipulate on prohibition of discrimination based on sex.

The equality between women and men, recognised by the Treaty of Rome, is an important preoccupation in the EU. Also in 2010, the European Commission released the document, called A Strengthened Commitment to Equality between Women and Men: A Women's Charter. European Commission statement on the occasion of International Women's Day 2010. In view of commemoration of the 15th anniversary of the adoption of a Declaration and Platform for Action at the UN World Conference on Women in Beijing and the 30th he anniversary of the UN Convention on the elimination of All Forms of Discrimination against Women, which emphasized that in today's society, "economic and social cohesion, sustainable growth and competitiveness, and tackling the demographic challenge depend on real equality between women and men"[11].

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[8] ONU, Universal Declaration of Human Rights adopted by the United Nations General Assembly at 10 September 1948, URL: http://www.ohchr.org/EN/UDHR/Documents/UDHR_Translations/rum.pdf, accessed on 26.05.2015.

[9] The Constitution was amended in 1999 and supplemented by the Law amending the Constitution no. 429/2003 published in the Official Gazette of Romania, Part I, no. 758 of 29 October 2003.

[10] ONU, United Nation Charter, 1945, URL: http://www.un.org/en/documents/charter/chapter1.shtml, accessed on 26.05.2015.

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In our country, equal opportunities and treatment between women and men was initially entrusted to the National Agency for Equal Opportunities between Women and Men (NAEO), followed by another specialized structure within the Ministry of Labour, Family, Social Protection Elderly and Equal Opportunities Directorate for Women and Men.

In support of the struggle for equality and non-discrimination, Romanian legislation based on the following: the Constitution (art. 4 para. 2 and art. 16 para 1), the Labour Code (art. 3-9), GD 137/2000, republished on prevention and sanctioning all forms of discrimination, Law 202/2002 on equal opportunities between women and men, GEO 96/2003 to Law 210/1999 on the protection of maternity and paternity leave. Medium-term concerns on this issue are summarized at the moment and the national strategy on equality between women and men.

Because women are considered by some sexual objects, being sometimes objects of social violence and sexual discrimination, it was imperative that this issue become one of the concerns of the legislator. Committee on the Elimination of Discrimination against Women, in article 1, defines clearly the term of discrimination against women in the following form: "any means any distinction, difference, exclusion or restriction made on the basis of sex which has the effect or purpose of recognizing the invalidity of impartiality, right or exercise by women, irrespective of their marital status, on the basis of gender, human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field"[12].

The topic is on the agenda of all States and undergoes permanent improvement, trying to cover a larger application area. It is the duty of states to take measures to eliminate discrimination against women and any person, organization or institution. The State is responsible for achieving women's equality with men before the law.

Regardless of geography, be it from Africa (African Charter on Human Rights), be it about America (American Convention on Human Rights) or Europe (European Convention on Human Rights and the European Social Charter), all proclaim the same rights and freedoms set out in the Treaties will be available without discrimination".

United Nations Resolution 1325 is the reference document that reaffirmed the importance of the role of women in prevention and resolution of conflicts and in peace-building process. The involvement of women and results in solving the problems of the contemporary world have highlighted the need to enhance the role of women in decision-making on conflict prevention and resolution and peace process[13].

Fight for rights, equality and non-discrimination is old and is still present in modern societies. Equal opportunities and equal treatment, as a principle of human rights is the attention of both the legislature and the political. At the national level, there was drafted the National Strategy of equality between women and men for the period 2014-2017[14] and a series of programs and guides[15], their results were recorded in reports, studies and analyzes, showing that steps are small, but significant for the recognition of equal opportunities and treatment.

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anniversary of the UN Convention on the elimination of All Forms of Discrimination against Women , Brussels, 2010 Report on the Application of the EU Charter of Fundamental Rights, 2010, URL: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0078:FIN:RO:PDF

[12] Ministry of Labour, Family and Social Protection, http://www.mmuncii.ro/j33/images/ Documente/ Transparenta/ Dezbateri _publice/2014-01-124_Anexa_1_Strategia.pdf, accessed on 26.05.2015.

[13] Committee on the Elimination of Discrimination against Women, the reporting criteria under the UN Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), URL: http://mpsfc.gov.md/file/egalitategen/Criterii%20de%20Raportare% 20baza % 20in% 20CEDAW.doc, accessed on 5/27/2015.

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4. Woman in modern society

Despite the existence of inequalities and supportive stereotypes, gender equality[16] is essential for the protection of human rights, the functioning of democracy, the rule of law, and economic growth and competitiveness.

Phenomena like modernization, urbanization, commuting, migration, unemployment influenced the evolution of women in society, both nationally and internationally, however discrimination against women is still a reality.

With the science and society evolvement, women rights have evolved too. Women have the right to be whatever they chose: mothers, career women, women in the military, women in politics, cosmonauts, wives, teachers, workers, researchers, presidents[17]. Access to lifelong education, the opportunity for building a successful career, timing of marriage, delaying the first born child (and most often, the only child), demographic eliberation of women, changing of the fashion style (its masculinization), reduced household activities, all lead to destruction the myth of the superiority of men and create conditions for achieving equal opportunities, independence of women.

In Romania, over the last years, the woman is in the discovering and rediscovering process, accepting the change in personal and professional life. It's very important to highlight that our late modernity does not consist in family dissolution in the name of equality between women and men[18]. The changes in society have brought changes in terms of family and generations sphere. The family was the space that promoted the dependence and inferiority of women, however the new technologies have reduced the time and effort of women in the household.

If, over centuries, women were assigned the only role of wife and mother, today we can talk about career woman who is leaving family life in second place. Women's intrusion into areas reserved until recently to men produces changes in perceptions and social representation of women.

Human security is constantly threatened in both the public and in private space. Some authors say that the woman is often considered the first and often the only parent responsible for the precarious situation in which the child is, a mother is usually blamed for family dysfunction, including domestic violence and accused of not fulfilling the role of wife and mother good"[19]. The violence present both in peace time and in a state of war has become a weapon. The feminine presence in solving cases of domestic violence, bullying and sexual harassment, genital mutilation, encourages the disinhibiting of victims. War zones are favorable for the development of prostitution and human trafficking. The presence of women in managing these situations leads to strengthening the confidence of the population. The police and the army, as guarantors of the public interest, are accountable to the community they serve. They should be representative of a nation's social landscape. Their existence guarantees the rights and freedoms of its citizens. Women's participation as a pillar around which builds and develops recover full democratic mechanism becomes essential.

The way the media presents women in politics, mainly analyzed through the prism of sexuality and dependence on masculine individuals only reinforces prejudices about their ability to make decisions and think objectively. However, after a brief analysis of the contribution of female personality who worked in politics: Park Geun-Hye, Indira Gandhi, Isabel Peron, Madeleine Albright, Hillary Clinton, Condoleezza Rice and Claude-France Arnould we can say that female sex representatives have managed to produce big changes as to the woman perception in the society.

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[16] Lazăr Vlăsceanu, Sociology and modernity, Polirom, Iaşi, 2007, apud Valentina Marinescu, Current chores in Romanian village. Case studies, Polirom, Iaşi, 2013, p. 200.

[17] Diana Neaga, Gender and Citizenship in Romania, Polirom, Iaşi, 2013, p. 291.

[18] Lazăr Vlăsceanu, op. cit., 2007, p. 198.

[19] Ana Muntean, Marciana Popescu, Smaranda Popa, Victims of domestic violence: children and women, Publisher Eurostampa, Bucharest, 2000, p. 10.

Conclusion

Everyday reality brings to the fore the issue of gender equality. Gender differences are rooted in our environment, in the social pressures, political, economic and religious and some of them are transformed into inequalities. In this context, the respect for gender equality is a condition for achieving human security, which, by definition, is focused on this aspect neglected by the traditional approach of security. The woman, as a symbol of society should benefit of human security on every aspects: economical security, food security, health security, ecological security, personal security, political security. Furthermore, the woman shouldn't be protected only through human security; she should contribute to achieving this by identifying and implementing solutions.

The affirmation of equality between women and men generated feminist autonomy and led, as was natural, to end of their *dependency* on men. In today's society, achieving a balance between career and family is a right enjoyed equally by both sexes. Equality, being a comparative concept, envisages both sexes. Equality of women is achieved not only for their own benefit, but also in the interest of men.

Nowadays, women's empowerment is no longer considered a danger for males. The effects of the change are visible at least in four areas.

In the *emotional sphere*, there is a greater involvement outside of the personal life sphere, moving from a *life for others* to a *life among others*. History has shown that from the tensions arising from gender relations, we can move on to partnerships based on economic, social, political and cultural interdependence.

The *cognitive education sphere* is bringing the females representatives in masculine specific areas, where they are showing real leadership qualities.

In terms of *communication*, we can affirm that we are in a period of modernization or of release of the woman from some habits and traditions.

Through the involvement in public life, in resolving some aspects of armed conflicts, the active participation in actions of restoring peace, the centuries-long fight for recognition and respect for gender equality has made important progress.

Became *a symbol* of the modern world, woman turned into an active agent of change, fighting for the recognition of the efforts made to the present, and to continue to build an image of the woman free from stereotypes and misconceptions.

Consequently, achieving human security seeks to empower women through education, participation and access, gender equality being seen as a necessary condition for peace, security and prosperity of human society.

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STRATEGIC DIALOGUE
with Brig. Gen. (Ret.) Senior Researcher Gheorghe VĂDUVA, PhD

The political-military crisis in Eastern Europe caused serious concerns regarding the stability and security of the continent which, for more than two decades and a half, was considered one of peace, cooperation, an area in which the possibility of a large armed conflict was almost unbelievable. Beyond changing the parameters in which we define European security, the Ukrainian crisis has generated a consistent string of questions about regional security dynamics.

Brigadier General (ret.) Senior Researcher Gheorghe Văduva accepted the proposal of *Strategic Impact* editorial team to answer a set of questions concerning the challenges of the crisis at the eastern borders of Romania.

He is one of the most famous Romanian experts in the field of security studies and geopolitics, strategy and geostrategy. With a thorough and consistent experience in the military, Gh. Văduva became a renowned researcher in Military Sciences and is considered today one of its landmarks. *Războiul viitorului, viitorul războiului* (The war of the future, the future of war, 2004), *Strategia de parteneriat, parteneriatul strategic* (The Strategy of Partnership, the Strategic Partnership, 2006), *Criza, conflictul, războiul* (Crisis, conflict, war 2007), are just some of his notorious works, to which are added dozens of articles, studies, interventions within conferences, materials that evince pragmatism, realism, deep understanding of topics, evading clichés and unjustifiable idealism.

Constant concern and passion for this field and the highly academic approach, are revealed throughout his career. Thus, between 1977 and 1997, Gh. Văduva worked as editor, main editor, chief of the combat training and military education department, editor in chief of the

"Military Observer" newspaper and head of the Armed Forces Press Department, having a broad editorial, journalistic, scientific research activity in the field of tactics, operational art and military strategy, defense and national security.

From 2001 to 2009, he has worked as Senior Researcher with the Centre for Defence and Security Strategic Studies from "Carol I" National Defence University (NDU), having a major contribution to maintaining the scientific quality of this publication. Since leaving the NDU, Brig. Gen. (Ret.) Senior Researcher Gheorge Văduva, PhD Went on with his research at the Institute for Security Studies within "Dimitrie Cantemir" Christian University continuing thus to provide valuable expertise for students, scholars and practitioners in this field.

THE AGE OF NECESSARY AND DANGEROUS INTERDEPENDENCIES

Ukraine crisis has brought to the attention of military specialists the issue of hybrid war. There are theorists though who consider this type of conflict is not new. What is your opinion on this issue?

Of course, hybrid warfare is not new. Only the term is new, expressing somehow better the characteristics of today's war, especially the war in Ukraine, and the one behind the Ukraine War. The term is, still, humiliating for the war phenomenon, once considered, in the pre-Napoleonic times, a cavalier competition, of honor, dignity and power. War has always been an extremely complicated phenomenon, with a very complex structure, meaning that in its composition

can be found, in one form or another, hundreds of other elements of human existence and action. In an ancient Indian treaty of antiquity strategy called *Arthashastra*, Kautylia largely developed such a vision. All wars have in their composition elements, pressures, sanctions, policies, strategies and actions coming from the whole spectrum of human action and way of life.

Do you think that hybrid war can complete the typology of future war, drawn by you in 2004?

The concept brings some clarification, namely, a certain caution. Today, no country in the world, not even the United States, can provide security by itself, in isolation, as strong as it may be and however effective the means it can afford may be. This is because the world has become highly interdependent. Even sovereignty - that is the essence of the state - is, today, one based on interdependencies. Therefore, the concept of hybrid warfare is part of the note contributing to raising awareness on the dynamics of war phenomenon, adding specification to the very complicated universe of war, but at the same time degrading the "coat of arms" and honor of the war.

What measures do you think should be adopted at national level in response to hybrid threats?

First of all, such threats, as well as the vulnerabilities associated must be identified, analyzed and very well known. I refer to those threats and vulnerabilities that can generate one form or another (political, economic, social, societal, anomic, informational, cognitive, etc., and especially military) of hybrid warfare (hybrid war containing, in a very mixed manner, even fluid, all of them!). Because all of the threats and vulnerabilities are not clear, easily identifiable, but prolixious, dirty, with extremely complicated geometries. There already exists a set of endogenous threats, produced by our very society, very much transnationalized and dangerously depersonalised, marked by the complicated conflict between the rule of law, the

very hasty expansion of multinationals networks, corporations, etc., by complicated financial dependencies, and especially, by the phenomenon of "brain draining" of countries that are unable to stop this type of migration, etc. Today, when the world is dominated by its very own networks, there are not too many things to do to stop the resurgence of hybrid threats, or vulnerabilities to them, which generates a very high risk. It is necessary to leave aside the laissez-faire (non-interventionism) attitude, and adopt one of great concern. The second set of measures relates to the strategic coverage against such threats and, thereby, to the creation of minimum conditions necessary to achieve an intelligent and efficient appropriate strategic maneuvers. I hope that I make myself well understood.

There is a widely accepted opinion that the Ukrainian crisis is the result of divergent interests between the EU and NATO, on the one hand, and the Russian Federation, on the other, concerning an area of strategic interest. What are the areas where this conflict of interest is manifested most strongly? What would be, in your opinion, the best solutions that could lessen the contradiction of interests?

The East and the West have always been in conflict. It is an essential geopolitical conflict. In this area, there is a centuries-old geopolitical strategic faultline on the alignment Baltic Sea - Black Sea, which is the first large strategic castling of yesterday's disruptive foyer – as Gérard Chaliand noted in the introductory study of the 1500 pages work of *Anthologie mondiale de la stratégie* (World Strategy Anthology) published by Robert Laffont in 1990 – in relation to the North Caspian Sea and Far East, and, equally, in the modern era of imperial Russia and Soviet Russia. For Russia (which represents, in this case, the East) were there and still are very important two maritime strategic corridors (corridor of the Baltic Sea and the one of the chain of seas in southeast and south of the continent - the Black Sea, the Aegean See, the Mediterranean), which ensures to Russia an opening to the warm ocean. But also of importance is the strategic corridor of the Danube and central Europe – starting

somewhere in Western Galicia, passing north of the European mountain chain, with the axis on the major European capitals and reaching Normandy, a kind of land strategic boulevard in Europe). Russia and Germany have long been restricted in their continental space.

Today, the situation is not too different from that of yesterday. It's still about power relations. Russia considers Ukraine a sort of strategic safety zone to the West (hence its opposition to NATO and EU expansion to the East), while the West believes that every country has the right to choose the path that it wants to follow and, as such, Russia has no right to advance geopolitical conditionings. Although, to a close examination, today, these considerations would seem that they no longer make sense, they are, however, very important since we speak of geostrategic positioning. Not coincidentally, two of the four strategic commands of Russia (St. Petersburg and Rostov on Don) are placed right at the entrance in the two maritime strategic corridors. Russia got armed, even if its GDP was, two years ago, only 2,335 billion dollars. An open conflict between Russia and NATO would make no sense and I doubt that it could happen. There is no availability for this. But Russia, by annexing Crimea, obtained what they see as due, even if this sets a precedent for changing borders by force and influence. NATO – that is us–, has achieved, by reactivation, a suitable device, and Russia has reinforced its strategic security space expansion into the Black Sea, accomplishing, in turn, such a device. The solution to this conflict in Ukraine is not easy. Perhaps it will freeze, and, in time, a solution shall be found that neither the West nor the East will feel frustrated and the situation in Ukraine is stabilized on relatively well coordinated. But it does not follow that all the problems generated by centuries of clashes and wars have been resolved.

In an interview in November 2014, German Chancellor Angela Merkel warned that the destabilization Ukraine is not only an issue of Ukraine, but also of Moldova, Georgia and even the Western Balkans. Do you think the events in Ukraine have the potential to destabilize the Western Balkan space? What are, in your opinion, the levers through which instability on the border of eastern Ukraine could be "exported" in the Western Balkans?

Russia's next move to achieve a fait accompli of the type carried by annexing Crimea could be a surprising action on Dniester river (Nistru) with the incorporation of Transnistria. It would, of course, be an adventure (mostly useless), but such an interpose would result in what one might call strategic paralysis for Ukraine and Russia's access to the mouths of the Danube. I do not think this will occur, nor that it is completely excluded. Russia has the capacity and capability to do this in strategic legitimacy, in the case in which Transnistria, after a potential referendum, would require to join Russia and the rebel areas in southern Moldova would facilitate and encourage such a mutation. But this would be a direct involvement of Russia in the conflict, whereas Transnistria, even if it declared its independence from Moldova, is, still, part of the republic. The Caucasian faultline is not entirely disabled either. Caucasian countries do not agree among them on the territory, and Russia, through the 2008 intervention in Georgia, has already given a signal that is not at all reassuring for anyone.

Nor the serrated strategic fault in the Balkans, which seems, at present, improved, is not completely deactivated. By isolating Serbia and incorporating some of the countries in the region into NATO and the European Union, the situation is stabilized only temporarily. The current President of Serbia, on the occasion of the 16th commemoration of his country's bombing by NATO, said in a speech that Serbia will always forgive, but will never forget. All populations on this dramatic faultline dating back from the time of the empires, caused by this very empires – the Ottoman and the Habsburg empires – think about the same and the interests of the great powers towards this area, rich in strategic resources (I refer in particular to Kosovo) has not diminished. True, the echoes of the crisis in Ukraine are strongly felt here, because dramas experienced by countries in this region in the violent breakup of Yugoslavia and the return to a new normality are still bleeding.

What is your opinion on the possibility that the events in Ukraine become a new frozen conflict in the region? But regarding the possibility that other frozen conflicts in the region to "unfreeze" in this context.

Populations from Eastern Ukraine (Russian or Russian-speaking) will not take, perhaps, a different status except for the separation of Ukraine and, in any event, of substantial autonomy. It is a kind of reedition of Kosovo, even if the situation is not equivalent. The heart of Ukraine never beat in Donetsk or Lugansk, as the Serbs in Kosovo Polje, even if these places are just as precious because of their natural resources. It is very difficult for the war in Ukraine to turn into a frozen conflict, although at the moment, this might be a solution that would avoid loss of life, massive destruction and unnecessary costs.

Separatists have not yet achieved their political nor their strategic objective and forces in Kiev are far from being able to impose solutions, even if they are supported by the United States, the European Union and, to some extent, by the reactivation of NATO.

I do not think that the existing frozen conflicts will be easily reactivated. International political and geopolitical pressure type is dissuasive in regard to these frozen conflicts, and the example of Ukraine is far from being an encouraging one. For now, the Ukrainian war, which broke out after the annexation of Crimea - the "Riviera" of the countries in the region - to Russia, nobody won anything. The conflict is not yet concluded, the weapons are not fully silent and economic sanctions have not produced so strong effects as to destroy Russia.

No option should not be ruled out yet. Virtually, anything is possible. Conflicts in the Caucasus, in Chechnya, Transnistria are not resolved and the parties do not accept solutions imposed by others, even if they are not able to find any viable solution themselves, apart from war. But this seems to be relative and ambiguous, based, generally, not on their own forces, but on the support of third parties interested in the issue. All these countries were in rebel areas and are now in areas of strategic interest to major powers and, as we know, the solutions (accepted or not by the populations) mostly come in various forms, formulas and imprints.

The forced or natural mixture of populations in Moldova, Caucasus and the Balkans does not mean confluences nor multiculturalism, it was not made through connections and confluences, but by the dynamics of interest political frontiers and, in general, offensive, aggressive, i.e. by mutations and impositions.

Basically, not only the Serbs cannot forget. No one forgets the cruelties, the horrors of war, the uprootings, the tragedies. People of value in these countries will start − have already begun − to thoroughly investigate realities, causes, involvement, implications and effects in time, interests, but real effects, good or bad, will be felt much later.

The crisis involves, by definition, the existence of both danger and opportunity. What opportunities do you see related to the Ukrainian crisis from the perspective of the EU, NATO and Romania?

I see no opportunity. Rather, we should focus on concerns. And, perhaps, on getting out of illusions. The Vilnius Summit clearly showed what the reality is on the axis of the Black Sea - Baltic Sea. Russia perceives NATO and EU enlargement as a threat and behave accordingly. NATO has reactivated the disposition on its eastern border, but the European Union and NATO European countries have not rushed to increase military spending to 2% of GDP. They will do this in the next ten years. Neither Romania, whose defense industry has deteriorated considerably in the last 25 years, took any substantial measures in this regard. "Security umbrellas" only work if you have an own national "umbrella" and NATO is not outside us, we are part of NATO ourselves. In other words, collective defense activates and operationalizes national defense, it does not substitute it.

At EU level, there is being developed and discussed a new European security strategy, intended to replace the document drawn up in 2003. Similar initiatives have taken place beforeas well. Do you think that, this time,

the nature of developments on regional and international security will be a powerful stimulant for Member States to reach a consensus in this area?

It should. The European Union can not have a solid duration in time without a security and defense dimension corresponding to its status. I think that, at the European Union level, there should be realized that Europe is responsible for its own defense and security. And, for this, it must have appropriate political and strategic concepts and forces, as well as means and resources.

In your opinion, what should be the essential points that a new European security strategy should include so that the outcome be relevant, useful and valid for the medium and long term?

Of course, such documents are drawn up according to specific criteria and I shall not go into details here. But I think that the European security and defense strategy should be a summary of the security and defense strategies of the member states and to match those in a unified European concept. Some essential points of such a strategy should, I believe, be the following:
• the justification of such a strategy, based on defining the characteristics of the international defense and security environment and the need for such a public document;
• identification of dangers, threats, vulnerabilities to them and risk levels of security (insecurity) and defense;
• a coherent European security and defence political decision, direct and consistent, that goes beyond doubts, uncertainties and exaggerated precautions, giving the world the signal of a great political, economic, cognitive and military power highly motivated, determined, valuable, consistent, capable and responsible;
• an appropriate definition of European security and defense strategy and a sufficient motivation and credibility thereof;
• a clear European strategic concept for security and defense structured on complexity, unity, integrity, flexibility, capability, interoperability and efficiency.

• a heritage and a system of European security and defense values that form the basis of the whole concept of strategic security and defense;
• a clear, undoubted, complete and reliable definition of the European vital strategic interest to express viability and vitality to the concept of European unity based on the unity, integrity, sovereignty, accountability, prosperity and the value of all component states;
• definition of forces, means and resources of security and defense and how they are expected to be further recruited, structured, prepared and used;
• levels and horizons of expectation.

What do you think should be the guidelines for future national security and defense strategies of Romania?

In principle, the same as above. To define more clearly a viable security and defense national concept, people responsible with preparing security and defense strategies, apart from the fact that they are developed in the European and allied context must, in my opinion, permanently keep in mind the vital national interests – the survival and sustainable development of the Romanian state. This even more so in a world where crises and conflicts, as well as the presusres of financial nature, of globalisation processes, of the interests of large corporations and the effects of extremely serious clashes for markets, resources and resetting of the areas in geopolitical tectonics run fast, unexpectedly and often by surprise.

These experts, from all structures of the national defense system, should understand very well that although today no country in the world, even the United States, can no longer provide security and defense alone for itself, its defense and security responsibility is an attribute of national sovereignty, and it is completely an obligation of the state. As mentioned previously, NATO's collective defense of the common defence contained in the concept of European security and defense operationalise the concept of national security and defence, making possible its materialisation, is an expression of solidarity and collective and common responsibility but, in any

case, do not substitute the national level. Planners should understand in depth the implications of this fact: no one will defend the country in our place, but allies will help us to face any situation. Therefore, the first of these guidelines is to calculate very acurately the level of security risk (uncertainty), identifying and assessing with great precision, if possible, all, absolutely all streams, waves and levels of challenges, dangers and threats, ad well as vulnerabilities of Romania endogenous and exogenous to them. Depending on their dynamics, it is necessary to set clear goals and objectives of security and those of the defense and set, in full knowledge, the levels of expectation, structures, preparation and ways of updating, making operational, function and action for specialised and support forces, as well as those of means and resources. Even if in the network philosophy and physiognomy, the phrase "by ourselves" appears to be outdated, there must be said that Romania's security and defence responsibility lies primarily and not least with the Romanians.

How should Romania's Military Strategy reflect the response to the actions of hybrid type?

Through an integrated approach (holistic) and, at the same time, in parts, on components, but not separately, but flexibly interconnected and through a comprehensive comparative analysis of the effects in their dynamics. Such a concept – hybrid action or hybrid war – does not change the nature of the actions, but their configuration. The Military strategy should, I think, to consider the need to timely plan and to achieve procedures to render forces and actions flexible and supertehnologised so that they prepare and experiment in due time certain ways out of the OODA loop (Observation, Orientation, Decision, Action) to make possible the control of the situation and the maintaining or recapturing the strategic, operational or tactical initiative.

Or, as it is well known, control can only be achieved only from outside. Hybrid confrontation appears as an excessive fluidisation and even as a degradation or deformation of the struggle space hindering, to a large extent, the action of getting out of the system, i.e. theoretically, from John Boyd's loop[1]. He called this cycle the OODA loop. Realizing a rapid transition out of the system, you can take out of the one of the three elements (Observation, Orientation, Decision) and, thus, by the degradation of the preaction flow, make it impossible to perform the action and, therefore, realise the strategic paralysis of the opponent. This action of principle permitted once the so-called Sabre technology (confusing the opponent and quick detachment of it) requires, even at the strategic planning level, such an approach as well.

But the ways of action outside the system are, in the case of hybrid actions, very complicated. Planners should not forget this. And, especially, those who draft the Military strategy – that document that puts into practice, by military means, the political decision on the defense country – should keep in mind the complexity of the very dilated, complicated and fluid space of the hybrid action, as well as means to counter it.

Translation from Romanian by
Daniela RĂPAN

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[1] Former fighter pilot in the Korean War, who understood that, in order to paralyze the opponent's actions, you need to control the situation and, in order to control it, you must detach yourself from the opponent and hit him in one of the points on which the action depends: observation , orientation, decision.

International Scientific Conference
STRATEGIES XXI
- The Complex and Dynamic Nature of the Security Environment -
June 11-12, 2015

STRATEGIES XXI is an activity with tradition, known in the academic environment both at national and international level. Over the fifteen years since this activity is organized, the value of the papers and the number of people interested to participate has constantly grown.

This year, the conference was organized on June 11 – 12. In the activity participated representatives from the national and international academic environment. The foreign guests were academic staff and researchers with "G. S. Rakovski" National Defence University from Sofia (Bulgaria), representatives of the Center for Defence Strategic Studies, National University of Public Service from Budapest (Hungary), from the Center for Security and Defence Strategic Studies from "Alexandru cel Bun" Armed Forces Military Academy in Chişinău (Republic of Moldova), from the Defence University in Brno (Czech Republic) and the Technical University from Madrid (Spain). Also, in the conference took part military attachés from Hungary, Greece, Turkey, China, Italy, Bulgaria and Serbia.

The Chief of the General Staff was represented by Mr. Brigadier General Nelu Bîrlă, deputy of Training and Doctrine Departament, and from the Ministry of Foreign Affairs participated the State Secretary, Mr. Daniel Ioniță.

Also, in the conference took part and published articles academic staff, researchers, PhD and master students from "Carol I" National Defence University, "Mihai Viteazul" National Intelligence Academy, "Alexandru Ioan Cuza" Police Academy, University of Bucharest, Bucharest University of Economic Studies, National School for Political and Administrative Studies, Babeș-Bolyai University, Center for Conflict Prevention and Early Warning, Ministry of National Defence, Ministry of Foreign Affairs, Ministry of Internal Affairs, Ministry of Public Finance, The Romanian Intelligence Service, The Chamber of Commerce and Industry of Romania.

Like the previous edition, it has also been integrated in the project "Transnational network of

integrated management of intelligent doctoral and postdoctoral research in the fields of *Military Science, Security and Intelligence, Public order and National Security* – Continuous formation program for elite researchers - "SmartSPODAS", developed by the National Defence University in partnership with the "Alexandru Ioan Cuza" Police Academy, The Association of the Center for Conflict Prevention and Early Warning and the Royal Strategic Studies Institute – CRISMART from Sweden, co-financed by the Operational Sectorial Program for the Development of Human Resources 2007-2013. From this point of view, the conference enjoys the participation of PhD and postdoctoral researchers from National Defence University and its partners.

The main issues approached range within the following topics: the new elements in the evolution of the international security environment, the balance of power in the context of developing International Relations, environmental risks and potential security threats, the impact of emerging countries on regional and international power centers, the role of non-state actors in the evolution of the security environment.

Among the conclusions resulting from the debates, we mention the most important ones:

- The transformations and the dynamic evolution of the security environment require a prudent and preventive conduct, with an active character in countering risks and threats efficiently.

- The hybrid threats and the conflictual manifestation as a hybrid war imply an adaption both at actional and conceptual level, and from the point of view of military organisation capabilities, as well as all the others actors in the field of security.

- The cyber component of current conflicts has major effects in terms of organization, planning and conducting military operations.

- Society transformation also requires the military organization transformation as a direct consequence; the necessity to reach some targets of capabilities and to maintain them in the medium and long term implies the urgent adoption of measures in the field of training reserve forces.

- State sovereignty in the context of EU and NATO membership is subject to changes in political, legal, economic, social, as well as in defence and security.

We believe that this event has achieved its main goal - to disseminate the latest research and studies in the field of national and international security and defense and, at the same time, to promote dialogue within the scientific community.

Also, international participation contributed to the exchange of experience between Member States and NATO partner countries.

Irina TĂTARU

Translation from Romanian by Lieutenant **Mirela GHEORGHE**.

THE CDSSS AGENDA

APRIL – JUNE 2015

Besides the current activities developed by the Centre for Defence and Security Strategic Studies Staff, in this period continued the series of public lectures organized at the *Palace of the National Military Circle,* our researchers delivering the following lectures: on April 8, Cristina Bogzeanu, PhD approached the theme: *"Western Balkans: Economic and Military Tendencies",* and on May 13, the CDSSS Director, Colonel Stan Anton, PhD spoke about *"Atypical Conflicts of the 21 Century's"*.

This year, the International Scientific Conference *STRATEGIES XXI* with the theme: *"The Complex and Dynamic Nature of the Security Environment"* took place on June 11-12, under the umbrella of *SmartSPODAS Project*, developed by the University. During the conference, communications were presented by representatives of "Carol I" National Defence University leadership, the Ministry of National Defence, the Ministry of Foreign Affairs, the Ministry of Internal Affairs, The Romanian Intelligence Service, Presidential Administration, representatives of the Czech Republic, Hungary, Bulgaria, Republic of Moldova and Spain. Alongside them, in the activity presented scientific communications representatives of national research institutions and civil universities, as well as PhD and postdoctoral students within the mentioned project.

The lectures main points were the ones regarding the role played by non-state actors in the power relations configurations at the beginning of the XXI century, security transformation, the strategic theory and practice, the military organisation's modernization and the cybernetic conflicts. The presentations stimulated intense discussions amongst participants, which made a contribution to the understanding and knowledge efforts, and also to the dissemination of some constructive ideas and opinions. The proceedings were published in two volumes in English language, indexed in ProQuest international database, and there were edited as well electronic editions both in Romanian and in English.

In the second half of this year, CDSSS has on its Agenda the organisation of a second workshop, which is to take place on October 10, with the theme *Romanian Army's Modernization. Capabilities, Tactics, Strategy*.

The next point on the CDSSS Agenda is the Symposium with the theme *Atypical Conflicts of the 21 Century's* which will take place on December 8. In the event, there are expected to present their lectures researches, academics and representatives of security and defence institutions.

Irina TĂTARU

Translation from Romanian by Lieutenant **Mirela GHEORGHE**.

GUIDE FOR AUTHORS

We welcome those interested in publishing articles in the bilingual academic journal *Strategic Impact*, while subjecting their attention towards aspects to consider upon drafting their articles.

ARTICLE LENGTH may vary between 6-12 pages (including bibliography and notes, tables and figures, if any). Page settings: margins - 2 cm, A 4 format. The article shall be written in Times New Roman font, size 12, one line spacing. The document shall be saved as Word 2003 (.doc). The name of the document shall contain the author's name.

ARTICLE STRUCTURE

- Title (centred, capital, bold characters, font 24).
- A short presentation of the author, comprising the following elements: given name, last name (the latter shall be written in capital letters, to avoid confusion), main institutional affiliation and position held, military rank, academic title, scientific title (PhD. title or PhD. candidate – domain and university), city and country of residence, e-mail address.
- A relevant abstract, which is not to exceed 150 words (italic characters)
- 5-8 relevant key-words (italic characters)
- Introduction / preliminary considerations
- 2 - 4 chapters (subchapters if applicable)
- Conclusions.
- Tables / graphics / figures shall be sent in .jpeg / .png. / .tiff. format as well.

In the case of tables, please mention above "**Table no. X**: Title", while in the case of figures there shall be mentioned below (eg. maps etc.), "**Figure no. X:** Title" and the source, if applicable, shall be mentioned in a footnote.

- REFERENCES shall be made according to academic regulations, in the form of footnotes. All quoted works shall be mentioned in the references, as seen below. Titles of works shall be written in the language in which they were consulted.

Example of book: Joshua S. Goldstein; Jon C. Pevehouse, *International Relations*, Longman Publishinghouse, 2010, pp. 356-382.

Example of article: Gheorghe Calopăreanu, "Providing Security through Education and Training in the European Union" in *Strategic Impact* no. 2 /2013, Bucharest, "Carol I" National Defence University.

Electronic sources shall be indicated in full, at the same time mentioning what the source represents (in the case of endnotes, the following mention shall be made: accessed on month, day, year). *Example of article*: John N. Nielsen, "Strategic Shock in North Africa", in *Grand strategy: the View from Oregon*, available at http://geopolicraticus.wordpress.com/2011/03/03/strategic-shock-in-north-africa/, accessed on 10.03.2014.

- BIBLIOGRAPHY shall contain all studied works, numbered, in alphabetical order, as seen below. Titles of works shall be written in the language in which they were consulted.

Example of book: GOLDSTEIN, Joshua S.; PEVEHOUSE, Jon C., *International Relations,* Longman Publishinghouse, 2010.

Example of article: CALOPĂREANU, Gheorghe, "Providing Security through Education and Training in the European Union" in *Strategic Impact* no. 2 /2013, Bucharest, "Carol I" National Defence University.

Electronic sources shall be indicated in full, at the same time mentioning what the source represents. *Example of article*: NIELSEN, John N., "Strategic Shock in North Africa", in *Grand strategy: the View from Oregon*, http://geopolicraticus.wordpress.com/2011/03/03/strategic-shock-in-north-africa/.

SELECTION CRITERIA are the following: the theme of the article must be in line with the subjects dealt by the journal: up-to-date topics related to political-military aspects, security, defence, geopolitics and geostrategies, international relations, intelligence; the quality of the scientific content; originality of the paper; novelty character – it should not have been priorly published; a relevant bibliography comprising recent and prestigious specialized works; English language has to correspond to academic standards; adequacy to the editorial standards adopted by the journal. Editors reserve the right to request authors or to make any changes considered necessary.

SCIENTIFIC EVALUATION PROCESS is developed according to the principle *double blind peer review*, by university teaching staff and scientific researchers with expertise in the field of the article. The author's identity is not known by evaluators and the name of the evaluators is not made known to authors. Authors are informed of the conclusions of the evaluation report, which represent the argument for accepting/rejecting an article. Consequently to the evaluation, there are three possibilities: a) the article is accepted for publication as such or with minor changes; b) the article may be published if the author makes recommended improvements (of content or of linguistic nature); c) the article is rejected. Previous to scientific evaluation, articles are subject to an *antiplagiarism analysis*.

DEADLINES: authors will send their articles in English to the editor's e-mail address, **impactstrategic@unap.ro**, according to the following time schedule: 15 December (no. 1); 15 March (no. 2); 15 June (no. 3) and 15 September (no. 4). If the article is accepted for publication, an integral translation of the article for the Romanian edition of the journal will be provided by the editor.

NOTA BENE: Articles shall not contain classified information.

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