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CENTRE FOR DEFENCE AND SECURITY STRATEGIC STUDIES**



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### Contact address:

Șoseaua Panduri, nr. 68-72, Sector 5, București, România  
Telephone: +4021-319.56.49, Fax: 4021-319.57. 80  
E-mail: [impactstrategic@unap.ro](mailto:impactstrategic@unap.ro)  
Websites: [http://cssas.unap.ro/index\\_en.htm](http://cssas.unap.ro/index_en.htm), <http://cssas.unap.ro/en/periodicals.htm>

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## EDITOR'S NOTE

Edition no. 56 of *Strategic Impact* scientific journal brings to the attention of our readers' articles drafted by experienced officers and academics as well as by young PhD candidates. The materials are grouped in three sections, followed by the CDSSS Agenda and a book review.

In the first rubric, ***Security and Military Strategy***, we included four studies approaching various aspects of this topic. To begin with, I propose you an analysis realised with Brig.Gen. (Ret.) Gheorghe Văduva PhD Senior Researcher on the *strategic coverage adequacy to the current security environment*. The second article, written by Mr. Răzvan Munteanu, represents a study on the *hybrid warfare – seen as the new form of conflict at the beginning of the century*. Further, Captain Teodora Zecheru, PhD Eng., Senior Researcher and Major Eng. Cătălin Săracu bring forward *aspects regarding information operations in operational environments where improvised explosive devices are employed*. The rubric ends with *a multi-criteria analysis of air communication platforms within the hybrid operational environment* signed by Major Cătălin Cioacă, PhD and Major Daniel Ștefănescu.

The second rubric, ***Geopolitics and Geostrategies: Trends and Perspectives*** comprises an article that deals with *recent evolutions of the Chinese naval power*, signed by Mr. Florin Diaconu, PhD. associate professor, a close and constant collaborator of the journal and of the CDSSS.

The section ***Analyses, Syntheses, Evaluations*** has five articles approaching different and at the same time challenging subjects. In the first article, Mr. Petrișor Bădică advances a material on *the national intelligence community in modern informational confrontation*. Our colleague, Irina Tătaru, PhD proposes a perspective on *economy as an integral part of national security*. A constant collaborator of the journal, Mrs. Mădălina Virginia Antonescu, PhD explores the *new human rights related to the need to counter negative excessive stress, (4th generation of human rights)*. There follows an analysis on the *key factors driving personnel downsizing in multinational military organizations*; the complexity of the study is shown as well by the multinational collective of authors: Ilksen Gorkem, PhD; Pilar Pazos, PhD; Resit Unal, PhD; Adrian Gheorghe, PhD and Gokay Sursal, PhD. The last but not least is our steady collaborator from Hungary, János Besenyő, PhD, who continues the series of studies on terrorism, this time approaching *suicide terror attacks in Africa*.

In the traditional rubric *CDSSS Agenda*, related to the period July-September, we signal our readers the publication of a series of research papers by the CDSSS members and the incoming Symposium on December 8.

This edition's Book Review, announces the recent publication of a title on terrorism – *Strategies and actional architectures to counter terrorism*, by Nicolae Radu, PhD Professor.

In the following edition of *Strategic Impact*, you shall read about the Simpoziu we organize in December and a *Strategic Dialogue* with the researcher Daniel Fiott from the Institute for European Studies at the Free University of Brussels (VUB) on European issues and the *2016 European Global Strategy*.

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>) awarded the title of *prestigious scientific journal in the field of military science, information and public order* by 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 approaches 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 its pages, analyses, syntheses and evaluations of 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



# STRATEGIC COVERAGE ADEQUACY TO THE CURRENT SECURITY ENVIRONMENT

*Stan ANTON, PhD\**  
*Gheorghe VĂDUVA, PhD\*\**

*The transformation process of the military organisation, with its multiple valences and multidimensional character, created by its objectives, results and effects, the necessary framework for orchestrating a coherent response to the challenges of the international security environment and threats to the Romanian national security, manifested in various forms - conventional, unconventional, asymmetric, hybrid threats, etc. within a type of conflict which deviates from norms, laws and principles.*

*In this context, strategic security measures, which also include strategic coverage need an adaptive reconceptualisation to achieve the fulfilment of the strategic goals and national military objectives. This is a very complex process, which will have to identify and formulate the correlation between this strategic instrument – strategic coverage and the manifestation of the atypical contemporary conflictuality – asymmetric, hybrid, irregular, unconventional wars etc., to establish as precisely as possible the determinations required by the doctrinal adequacy of the military art elements, as a result of the lessons learned from the Romanian Army's participation in different theatres of*

*operations, and also the implications of these determinations.*

**Keywords:** *Strategy, strategic concept, strategic defence, strategic coverage, strategic principles.*

## Introduction

The current security environment is dominated by a multidimensional conflictuality, by multiple, asymmetric, atypical confrontations that constitute the increasingly manifestation framework of the economical, political, social, doctrinal-ideological, theological and cultural oppositions between the state actors in the power relations established regionally or globally, between state and non-state actors or between different interest groups, either political or economical, in the process of globalisation. These characteristics mark the sense of human evolution and social development of nations.

From this perspective, of a conflictuality of asymmetric and atypical type, the role of the military organisation will undergo changes, the armed forces needing a conceptual adaptation, operational restructuration and actional flexibility

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*\* Colonel Stan ANTON, PhD is Director of the Centre for Defence and Security Strategic Studies within "Carol I" National Defence University, Bucharest, Romania. E-mail: anton.stan@unap.ro*

*\*\* General Brigadier (r) Gheorghe VĂDUVA, PhD Senior Researcher is Deputy Director at the International Institute of Human Rights within "Dimitrie Cantemir" Christian University in Bucharest, Romania and Chief Editor of "Strategic Universe" and "Cultural Horizon XXI" academic journals. E-mail: vaduvageorge@yahoo.fr*



allowing a firm answer, on different levels and on all levels of the military actions, these characteristics being prerequisites or factors of success in carrying out the missions.

Within the large range of strategic defence measures there is also strategic coverage, action which fundamentally influences the success and strategic riposte as a whole.

Strategic coverage, as defined in its beginning in the Romanian military theory and science, appeared from the combat experience of the Romanian Army in different historical moments and, especially, during and after the War of Independence or the two World Wars, confirmed the viability and validity of the strategic concept, which contributed to the realization of the general overalls of strategic defence.<sup>1</sup>

Military theorists of the moment are trying to determine to what extent, in the era of globalization and interdependence, of open borders and free movement, of borders that are permeable to mass movements of population, such a concept is actual and adequate for achieving the strategic goals and protecting the national interests, as specified in the Constitution of Romania.

This question is legitimate, given the

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<sup>1</sup> A series of papers that describe and define this concept began to appear after the World War I, in 1927 Col. Dumitru B. Popescu elaborating the work "Borders coverage and the tactics of covering troops". A few years later, Div.Gen. Virgil Economu and Maj. Vasile Chițu published a study entitled „Retreating maneuver on the covering troops”, followed by Lt. Col. Ioan Cernăianu’s work “Tactics of the covering troops”, published in 1934. After World War II, the concerns on solving the strategic and tactical-operative issues, and also the ones of scientific substantiation, have been discussed in various papers, including an analysis of the Romanian coverage operation in September 1944, elaborated by Eugen Bantea or Lt.Gen. Iulian Topliceanu’s work “Strategic coverage” elaborated in 1987. After 1989, concerns regarding the application of this concept were found in different research studies, scientific articles or doctoral dissertations that showed new ways of approaching the strategic coverage as part of the strategic security, taking into account the concrete political-military evolutions, among which there is the article written by Maj.Gen. Radu Vlăsceanu and Lt.Col. Mihai Miron “Some considerations regarding the concept of strategic coverage” in 1992, or the study “Strategic coverage. Operational Perspectives” of the authors A.C.Gen. Dumitru Cioflină and Brig.Gen. Liviu Habian, in 1997.

complexity of conflictuality and the continuous degradation of the international security environment. The dangers and threats are so great, so complex and diversified, that, at present, no state in the world can ensure security and, much less, defence alone, isolated, without the implication of the international community. In other words, the vulnerabilities of the states are so great, and the threats are so numerous, that the risks of political, economic, military, social and cultural nature tend toward violent extreme manifestations.

In this context, the thesis of neoliberalism increasingly spreads the idea that the state represents a brake in the development of the human society and even a threat to the international security, especially because of the existence of some failed states. In the context of globalization, some political, military, cultural, religious, economic, financial etc. entities create a new context of formal and informal exercise of the national power. Regional and international institutions, governs and non-state actors, particularly large transnational corporations, some nongovernmental organizations, religious groups, private security companies etc. make use of the globalization tools and decrease the state monopoly on power.

So far, the international system is based on sovereign and independent states, but interdependent regarding political action and socio-economic development. This interdependence tends to replace more and more the notion of *independence*, hence the conclusion that the concept of sovereignty would be not only obsolete but also dangerous.

Of course, all these considerations and many others, generally imposed by the manifestation of the transnational economies, the informational, media and cognitive interdependence generate justified pressures, but, beyond them, there are realities that haven’t changed over the centuries.

States are not just territories closed in political borders, but also national, cultural, civilisational entities and identities which individualize and particularize the human communities and keep them, even in the era of universalisation,





information and knowledge, specificity, value and authenticity. Therefore, states will defend themselves, as a matter of course, by the entities that threaten their identity.

In our opinion, all the phenomena that occur in the human society bear the imprint of society dynamics, flexibility and ubiquity. And, because the relations between the states and other non-state or interstate (including supra-state) identities are far from being only of collaboration, trust, harmony and mutual respect, continuing to be very complicated, complex, competitive and even conflictual, so regarding the lines of force, the strategic coverage issue is and will remain in the pipeline for a long time. And war, as an extreme event, isn't an exception of this rule which is increasingly confirmed.

War is presented as a continuous phenomenon, with variable dimension and intensity, having a wide range of shapes and actions, from the violent military confrontation, culminating with the two World Wars, to confrontations of various nature: political, economical, social, cultural-religious, identity, informational, media and more increasingly and profoundly cognitive. The current reality, of an international and national political system in which non-state actors are as important as the state actors, brings forward controversies and differences, technological leaps, philosophical-ideological and cultural disputes that might create major effects in the behaviour of individuals and societies. Therefore, we consider that the change of paradigm in various fields, induced mainly by the information society, the struggle between modern and traditional or other elements that are based less on evolution and more on revolution, will become major sources of conflictuality regionally or globally.<sup>2</sup>

People wage war in everything: in ideas, concepts, actions. So do the social entities in which they live. *Nobody gives up their interests, goals, objectives and actions unless they are forced to do it.* And not even then. They only

change the shape and sometimes the means of achievement.

Therefore, people and their communities, in addition to ideas, concepts, plans, resources and actions, need a security environment, *a security space, a coverage* which, on the one hand, shelter them and, on the other hand, allow them to prepare, without being seen by others – potential enemies –, to face a confrontation, specifically, an open conflict, war and any other complicated situation which could threaten the community, the state, the area.

In these conditions, *strategic coverage* concept maintains not only its vital importance for complex situations, that can lead to war, but also the actuality, rebuilt too, as *modus vivendi* itself of the state, as the notion of very sovereignty, on a relation of interdependence. Strategic coverage remains, however, a state action which is exercised either individually, as a tribute of its sovereignty, and also in allied context, as effect of the fact that sovereignty is based more and more on interdependencies.

In the following, we analyze the concept of *strategic coverage* in the new conditions of the security international environment, where the states, international organisations, alliances, coalitions and, especially, the interdependences between them represent not only realities in which we live, but also essential determinations of our way of life in the era of knowledge society.

### 1. Towards a reconceptualisation of strategic coverage

Strategic coverage has an extremely complex content and numerous nuances. Although the concept seems very clear, not all specialists, theorists or practitioners, as well as those interested understand the same thing when they think about strategic coverage. Quasi-most authors consider strategic coverage in a predominantly military vision, strictly linked to the operation of strategic level, especially by the defence operation<sup>3</sup>, while others appreciate that coverage belongs with the

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<sup>2</sup> For details, see Stan Anton, "Conceptual Insights Regarding the Strategic Shock and Strategic Surprise", in *Impact Strategic* no. 1/2013, edited by the Centre for Defence and Security Strategic Studies, Bucharest, "Carol I" National Defence University Publishinghouse, [http://cssas.unap.ro/en/pdf\\_periodicals/si46.swf](http://cssas.unap.ro/en/pdf_periodicals/si46.swf).

<sup>3</sup> Maj.Gen. Radu Vlăsceanu; Lt.Col. Mihai Miron, "Some Considerations Regarding the Concept of Strategic Coverage", in *Romanian Military Thinking*, no. 2/1992, Bucharest, Editura CTEA, p. 58.



phenomenon of war as such, realising not only as an action with preemptive character or as a measure of strategic safety in the preparation stage of the strategic defence, sometimes in the stage of strategic offensive<sup>4</sup> (when it comes to a war with offensive goals), but in all specific stages, phases and actions of the war, even after defence operations and strategic offensive.

Generally, coverage is a concept with many components and multiple meanings linked to ensuring, camouflage, hiding, miming, cheating, dissimulation, attention counter, influencing etc., but also ensuring all conditions for the strategic coverage disposition to work, the action to take place, and the desired, planned or estimated effect to be produced, in other words, a condition for achieving strategic safety.

Pursuant to the evolution, development of knowledge and analysis of the military action, war and conflictuality, we consider the need for a new approach in explaining and implementing this strategic concept, supported by strategic reasoning and judgments which take into consideration the technological evolution and the dynamics of human society in the processes of interdependence on different levels of economical, social and cultural development. Exiting the Clausewitzian paradigm of the war is difficult, but as the events, crises and conflicts in the past 10-15 years demonstrated, there is necessary a new understanding of the logic of armed violence promoted and provoked not only by the states, but also by transnational actors or belligerents. But also in this case, the reasoning and judgments must be elaborated not in categorical and apodictic dimensions, but especially in relative, complex and dynamic evaluations.

In Romanian traditional military thinking, strategic coverage generally meant *borders coverage*, especially in areas where attacks against the country could take place. And as Romania or precursor state forms of the Romanian modern state, in all historical stages, starting with the

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<sup>4</sup> C.A.Gen. Dumitru Cioflină; Gl.bg. Liviu Habian, "Strategic coverage. Operational Perspective", in *Bulletin of Academy for Advanced Military Studies (AAMS)*, no. 3/1997, Bucharest, AAMS Publishinghouse, p. 106.

ones from ancient times and till today, have been surrounded by great empires or by countries that had pretensions and intensions of territorial conquests on this geographical space, the problem of strategic security on borders was and remained all the time a vital one. Especially in the modern era, to achieve this goal, it has been approved as a means of achieving the strategic security goals the dislocation, in the peacetime, of the combat units and formations on the possible action directions of a probable aggressor, echeloned in depth. This predislocation of the armed forces was closely linked to the devices specified in the plans of strategic defence, taking into consideration the probable scenario in which the aggression could take place, in one area of operations or simultaneously on several strategic directions.

Today, things are completely different. In the current conditions of security environment, the role and responsibilities of Romania within the different forms of security organizations, we appreciate that *strategic coverage* is an attribute of the sovereign state, which is exerted continuously, flexibly, balanced and reasonably, both nationally, and in cooperation with allies and partners, so that to prevent the strategic surprise from a possible opponent (but not only) and to create all the necessary conditions to exercise efficiently the fundamental strategic manoeuvre<sup>5</sup>.

In our opinion, *strategic coverage* in the current security conditions may constitute a strategic concept by itself, which can be included in the *strategic tools to materialize the large national security concept*. Thus, adequacy as *wide strategic coverage* would represent a flexible answer to the contemporary security challenges, integrating harmoniously the whole set of skills and capabilities of the Romanian state for an efficient action in meeting the political and strategic goals of the decision-makers according

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<sup>5</sup> *Fundamental strategic manoeuvre* is a generic term that includes all types of manoeuvre (political, military, economical, energetic, financial, media, info-strategic, cognitive, regarding the safety and public order, but especially the strategic manoeuvre of military type), its planning and all forms and formulas of strategic and operational management.



to the Constitution of Romania, nationally, and from the point of view of NATO and UE, perhaps as a form of implementing the provisions of the strategic concept of comprehensive approach.

Of course, strategic coverage is also realised in an alliance, coalition, some groups of forces and means built for certain actions, usually of high-risk (military, first of all, but also economic, especially energetic, financial, informational, cognitive etc.) and it covers not only the aspects of hiding, protection, safety, content and consistency of that action, but all the other aspects which include training, resources, goals, objectives, forces, means, effects. The fact Romania is a NATO and European Union country is an advantage for realising this kind of concept, but in any case, it doesn't substitute the national responsibility regarding its conception and implementation.

In allied plan, of a defining importance are strategies which reflect the dynamics and capabilities not only of the allies and partners, but also of the potential opponents. Thus, the deterrence and assurance strategies are important for approaching the specific regional challenges and to ensure the best use of some defence resources that are always limited. Additionally, the structuring of some collaborative processes among allies and partners, or within the bilateral strategic partnerships, can contribute to a better integration of the specific military capabilities or provide access to additional operative information and data. For example, as a result of the crisis in Ukraine and the strong East-West oppositions on the Black Sea – Caspian Sea crevice, the North Atlantic Alliance reactivated the device on the eastern flank. Thus, we can say that Romania, in the concept of national strategic coverage, benefits by elements of the alliance strategic coverage, realised within NATO.

Based on these assumptions, we can say that the *large strategic coverage* consists of a diversified set of policies, strategies, measures, projects and actions of the entire spectrum of security, public order and defence, thus security and defence, which also aims the planning, creation, maintenance and functioning of some

covering preventive, preemptive and action (reaction) devices usually with limited objective, which create, sustain and maintain the covering conditions necessary to achieve *strategic security*, *strategic masking* and *fundamental strategic manoeuvre*, in all the components and variants of the effective strategic actions, both in terms of normality (peace) and abnormality (crisis, conflict and war).

*The goals of covering policies, strategies and actions* are multiple, being subsequent to the national strategic goals and objectives, with priority given to the vulnerable areas.

In relation to the evolution of the military phenomenon, "the goals of the strategic coverage diversified and complicated, answering the profound changes produced in the military art, as a whole: the expansion of the actions space, increase the quantities of forces and means by emergence of mass armies, increasing the complexity of political-military phenomena".<sup>6</sup>

They can be divided (for analysis), in our opinion, in three large categories:

- *goals which imply continuous and permanent covering actions* adapted to the dynamics of the relations between threats and vulnerabilities related to the risk management and avoiding the strategic surprise, such as mobilization and execution of the strategic deployment;
- *goals which imply covering actions with predominantly dissuasive functions* (so, in one form or another, visible), which are designed, planned and carried out to send a message, such as force demonstrations or exercises and military manoeuvres;
- *goals which imply covering actions for the fundamental strategic manoeuvre*, such as ensuring the necessary space to engage the main forces while strategic defence.

Actually, all these three goal categories also generate the *fundamental functions of strategic coverage*, as follows:

- ensuring the continuity of strategic leadership and management in the entire spectrum of conflictuality;

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<sup>6</sup> Lt.Gen. Iulian Topliceanu, *Strategic coverage*, Bucharest, Editura Militară, 1987, p. 90.



- avoiding the strategic surprise and preventing the production of strategic shocks;
- deterrence;
- initial hiring of the opponent in the space of (informational, cognitive, cybernetic, land, air, naval etc.) conflict;
- masking or camouflaging the fundamental strategic manoeuvre and its component;
- ensuring uninterrupted functionality of the strategic infrastructure systems.

Strategic coverage always involves, therefore, regardless of its effective specific and goals, a coherent and consistent triptych of ***policies, strategies and devices***. To these are also added, of course, ***appropriate actions***.

***Policies*** result from the vital national interest – to survive in a hostile, anarchic environment, and this vital interest, no matter how it was formulated and expressed, was always a basic pillar in the Romanian politics of all times.

The role and purpose of the ***strategies*** is to put into practice the political decisions – in this case, the decision to ensure always a minimum of covering forces, means, resources, plans and actions, especially for fundamental strategic manoeuvre –, in a coherent, consistent and reasonable manner, without creating suspicions that could be taken as challenges or preparations for offensive actions on the near territory.

***Devices*** are locations of forces, means and resources for actions which equip the concept of strategic coverage as it is designed, defined and explained by the political and strategic decision-maker. In strategic coverage, the devices issue is essential. These devices are and can be, on the one hand, specialised on certain types of actions (cybernetic, informational, cognitive, financial, political, geopolitical, military etc.) and, on the other hand, regardless of their role and speciality, integrated not only in the same concept, but also in the same strategic plan, in the same complex dynamic and processual system.

***Coverage actions*** are specific actions and regard:

- misleading the possible opponent about the intentions of their own main forces, planning, stages and other measures to be taken in a very complex strategic situation or in a common strategic situations, but which regard some

complex evolutions, that can be dangers or threats for the national security and, especially, for the sovereignty of the country and which require defence measures of the territory and to all spaces of strategic interest for Romania and its allies, defining a certain level of risk<sup>7</sup>;

- deterring the possible opponents, by sending, through specific means, a message in terms of potential, determination, firmness and credibility about the reaction of any kind of attack on the country and its allies;

- strategic masking of the fundamental strategic manoeuvre and, linked to this, of the operative and tactical manoeuvres.

Among the numerous ***actions specific to the strategic coverage*** (with their manifestation at operative and tactical level), in our opinion, belong also the following:

- actions to ensure the continuous surveillance of the spaces and areas of strategic interest, immediately and in the long run (it is about the spaces and areas related to the political, economical, informational, cognitive, cybernetic, military etc. fields), for Romania and its allies;
- actions and diplomatic steps;
- internal and external actions for the protection of the State sovereignty;
- actions to ensure the conditions necessary for protecting the information of strategic value;
- actions in the cybernetic space for the protection and combat of the specific aggressions;
- strategic informational actions;
- actions of strategic communication;
- actions in the economic and financial sectors;
- actions to protect and maintain functional the critical/strategic infrastructure;
- civilian-military actions at central, local level and communities;
- specific military actions of strategic deployment and employment of the opponent;
- other actions.

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<sup>7</sup> The level of risk, R, is defined by the intersection of the threat level, A, which has values between 0 and 1 and the vulnerability, which has also values between 0 and 1. So  $R = A \cap V$ .



## 2. Principles of strategic coverage

The implementation of some principles in strategic coverage (also available at operative and tactical levels) ensure consistency of the strategic coverage concept, continuity and coherence in implementing the decisions taken in this regard, as well as the substantial expertise of these decisions elaboration processes.

From the beginning, we must emphasize that, in our conception, resulting from the solid analysis of the parameters and reality of this concept, strategic coverage is not simply just one stage of war or of some of its operations, but an intrinsic confrontation concept of any type, an essential and necessary condition to apply the *principles of armed combat* (in case of war fought by military means) and the *principles of competition and confrontation* (in other forms of continuous conflict/war).

Among the main principles of the concept of strategic coverage and actions resulted from this, we also consider the following: permanence (omnipresence); multifunctionality; coherence; sufficiency; complementarity (completeness); opportunity (opportune manoeuvre); strategic surprise; principle of flexibility; principle of efficiency.

*The principle of permanence* (omnipresence) is one of the basic principles of the strategic coverage. Given that the strategic coverage is not and can't be temporary or circumstantial, but only continuous, well structured and very well adapted (in dimension, intensity, forces, means, resources, policies, strategies, tactics, techniques and procedures) at the concrete conditions of situation, it is necessary to define and maintain continuously the parameters of the *permanence* concept regarding the strategic coverage and its limits.

*The multifunctionality principle* implies the coherent, integrated and coordinated answer of all active components in implementing the measures of strategic coverage, being complementary to the principle of coherence.

*The coherence principle* is closely linked to that of permanence and is to realise an optimal chain and a functional interoperability, within

the great diversity of forces, means, resources and actions, of all notions, concepts, actions and procedures, so that the strategic coverage, in all its components, to operate discreetly, coherent and efficiently.

*The principle of resource sufficiency* consists in establishing and ensuring a minimum of forces, means and resources, through a consistent and coherent planning, so that to prevent their waste or insufficiency. This principle is closely linked to that of *sufficient reason*, which means the thorough analysis of the security environment of strategic interest, the characteristics of their threatens and vulnerabilities, so of the risk level, the appropriate expertise of the political-military, economical, security and public order, etc., exact knowledge of the *vital strategic national interest* and adoption, in full knowledge, of all the measures to be taken.

*The principle of complementarity* lies in the design and even in the consistent planning of the ways that ensure the assembly, within the concept of strategic coverage, of all participant forces in an inter-institutional framework (political, diplomatic, economical, academic, of information, security and public order, military etc.), so that each of them to act in a specific way, but complementary with all the others, according to the competences in the field. In this respect, it is necessary an *array of competences of the forces participating in the strategic coverage*, part of the process of interoperability, interinstitutional cooperation and coordination of all the parts in the system of the national defence. But, whereas the strategic coverage is a concept that is applied at all times, in all areas and in all fields (political-strategic, military, economical, geophysical, cybernetic etc.), such an array must be drawn up and updated with priority.

*The principle of opportunity* (opportune manoeuvre). Despite the permanent character of the strategic coverage, it is stringent as the measures provided in plans to be implemented in time to satisfy the needs and necessity of anticipatory adaptation, related to the concrete conditions of the situation, and also to have a preventive or preemptive character, as appropriate. This principle involves the thorough analysis of the possible threats and vulnerabilities of these



and the creation of an umbrella that, on the one hand, „covers” the vulnerabilities, protects the system and annihilates the threat and, on the other hand, „blinds” the opponent and creates that invisible or penumbra area which allows the freedom of action within the fundamental strategic manoeuvre and achieving the strategic surprise.

*The principle of strategic surprise* is a basic principle in the military action, creatively applied and adapted to the objectives of strategic coverage, the surprise contributing to the achieving of the strategic general purpose through a series of effects which, added together, can induce even effects of cognitive paralysis of the opponent. The key to success lies in unexpected and fast actions across the entire spectrum of conflictuality, starting with the peace state and to the war, and in the implementation of the strategic coverage measures counts equally the surprise avoiding, but also the opponent surprise. The surprise had a decisive role in the victory in all historical periods „all great captains seeking to achieve surprise both in the strategic manoeuvre, and on the battlefield”<sup>8</sup>.

*The principle of flexibility* is, from a certain perspective, the operational principle of the strategic coverage. Although it has clear coordinates and benchmarks, the strategic coverage is not a rigid umbrella, but a flexible system of concepts, policies, strategies, devices, actions and effects which interact and are modelled on the principle of preventing (preemptive), according to the forecasts regarding the evolution of the strategic situation and its actual realities.

*The principle of efficiency* lies in anticipating the effect and in shaping the action depending on what is expected of it. Therefore, each type of strategic coverage is planned and deployed in those parameters which ensure maximum efficiency.

### **3. A taxonomy of extended strategic coverage**

In the contemporary security environment conditions, strategic coverage, as we described

<sup>8</sup> Ioan Sichițiu; Alexandru Ioanițiu, *Elements of Strategy*, Bucharest, Atelierele Cartea Românească, 1936, p. 66.

above, is not only about borders coverage. And even if this type of strategic coverage is not confined, but, on the contrary, it becomes very active (especially that the border, today, particularly in the European communitarian space, it is no longer a line that separates and opposes, but one that identifies and, in a way, links), the typology of strategic coverage, as well as the operational and tactical ones, expanding a lot its coverage scope.

Theoretically, the types of strategic coverage can be reduced to a few; basically, they are numerous and depend largely on the geopolitical area, the dynamics of the dangers, challenges and threats, vulnerabilities to these, i.e. the level of risk, diplomacy, the specific of the international and regional relations, the effective condition of the state, traditions, the characteristics of the area of strategic interest for the state and other states, new challenges etc.

The typology is necessary for a complete understanding of the concept of strategic coverage and the appropriate development of the policies, strategies and effective actions that put it into practice. The strategic coverage is part of a policy, of a strategy and device, itself being a complex of (general and specific) policies, strategies (of forces, means, resources and actions), (strategic, operative and tactical) devices, operations and actions coordinated inter-institutionally.

There are several criteria for analysis and classification of the types of actions and procedures related to strategic coverage, pointing out both the general character, and the individual specificity, such as: *the purpose and performed functions; object of strategic coverage; content of strategic coverage*.

Thus, according to *the purpose and performed functions*, the strategic coverage may take the following forms:

- *Strategic coverage on behalf of the vital strategic management* is the largest, the most complex, the most various and difficult, as it includes everything that is of interest for such a management. This coverage can also be of *routine, security, deterrence and betrayal*.

- *Strategic coverage of deterrence*



(*dissuasive*) is a type of deterrence by visible strategic coverage (or planned in such a way as to be visible) and it is used when somebody wants to deter (external or internal) actions that affect or could seriously affect the territorial integrity and the security of the Romanian state and which should act on all levels.

- *Strategic coverage of masking the fundamental strategic manoeuvre* is not essentially different from the others, but part of the dissuasive package designed by a state. Of course, not only the fundamental strategic manoeuvre (which is more a concept than a concrete form of the strategic manoeuvre) needs to be covered, but all types of manoeuvres, at all levels (political-decisional, strategic, operational and tactical). An eloquent example is given by the masking of the entrance into the device of the great units and hiding the movement of the troops for strategic coverage, measurement of vital importance from the military point of view<sup>9</sup>.

When we talk about the strategic coverage we refer obviously to the strategic level. It has a purpose and, of course, an object. The object of the strategic coverage consists of what needs to be covered. This object can be a space, a device or an action.

Therefore, *according the object*, strategic coverage may be of several types:

- *Strategic coverage of borders* is a very old concept, dating from the era of conflict linearity and appeared once with the first organisational forms of human communities, forced by the circumstances and uncertain environment to ensure the territorial limits (the border) and to guard its area. Of course, strategic coverage of the borders doesn't consist in the border guard and security, but it is a much larger and wider action. In Romania, for example, the strategic coverage of the borders was achieved over time, by placing some large military units, and other forces too, so that their intervention at the border to be carried out in the shortest time.

- *Strategic coverage of territory* involves placing the forces, means and resources of

security and defence so that all the objectives and all the areas, especially the important ones, of the national territory to be covered, supervised and protected in real time against any threats of any kind. The modern concept of strategic coverage aims to cover the whole territory. This means that, in every important area of the national territory, there should be elements which participate in the realisation and materialisation of this concept. The border is, of course, important, but in the modern era, especially after the appearance and operation of the networks, the transnational economy and cybernetic space, the concept of *integral territory* is very important.

- *Strategic coverage of strategic interest areas* doesn't represent the same thing with the strategic coverage of the territory. We consider that the spaces of strategic interest that should be covered are the following: cybernetic space, physical space, cognitive space.

- *Strategic coverage of operations and actions* is a dynamic one and always comes in all actions, even in the visible ones, discovered, for example, within the demonstrative exercises or force demonstrations, and aim, on the one hand, the strategic masking (when and where needed), creating a certain perception and certain feelings (of trust, sympathy, encouragement or discouragement, transmission of certain signals etc.), but also to ensure the conditions so that the vulnerabilities not to distinguish, and the strong points to be visible.

- *Integral strategic coverage* isn't a simple summation of the strategic coverage in the cybernetic, physical and cognitive spaces, but a way of assembling in the same concept. In fact, the real strategic coverage of these spaces is based on interconnection and complementarity, as each of these spaces is found, in one form or another, in the other. Today – and, even more in the future –, we can't speak about virtual space without considering its physical support and infrastructures. We cannot speak either about the physical space, isolated, because, besides the fact that it is a support for everything, it is, at the same time, a recipient of functions and effects of the virtual space and cognitive space. We can say the

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<sup>9</sup> Lt. Gen. Iulian Topliceanu, *Strategic Coverage*, Bucharest, Editura Militară, 1987, p. 195.



same thing about the cognitive space, although the latter belongs to people's thinking, the higher form of existence in the human society.

Each type of coverage has an object, and all these types require a unitary management, in order to achieve connectivity, ubiquity and completeness.

The concept of strategic coverage must include, not only in form but also in content, all the fields of human activity, because individually, the society, the state need protection and coverage in everything they do.

Thus, *according to the content*, the strategic coverage can be manifested in one of the forms we explain further.

- *Legal coverage* is part of the arsenal of general strategic coverage and it must be understood as a way of regulation *and legitimating* this strategic action.

- *Strategic economic and financial coverage* is also part of the arsenal of strategic general or integrated coverage. It is perhaps one of the most important and most difficult components of the national strategic coverage. Such coverage consists of a system of economic and financial strategies and policies which ensure the economic and financial conditions necessary and sufficient to carry out the fundamental strategic manoeuvre, in any situations of the security environment. The strategic economic and financial coverage consists, first of all, of the existence and proper functioning of an economic and financial system that is coherent, consistent, flexible and easy adaptable to the evolutions and involutions of the economic-financial environment, but also of the security strategic one.

- *Strategic informational (info-strategic) coverage* is part of an assembly that gives consistency and coherence to all policies, strategies, operations and actions of strategic coverage and all the devices performed in this respect.

- *Strategic cognitive coverage* is, in fact, the essence of strategic coverage of any kind. It requires a very good knowledge of all areas, spaces, devices, actions and, especially, reasons that they generate. The cognitive strategic

coverage is a kind of principle of sufficient reason which must shelter and protect both the cognitive patrimony and the cognitive approach, specific to all ages, but passed to the fore in the age of knowledge society.

- *Strategic political coverage* is essential in the act of government, legislation and strategic decision. The strategic political coverage has at least two dimensions vital for the state security and defence: proper, intelligent and flexible coverage of the political area, i.e. of the security and defence policies and of the ones of connection with them and political strategic coverage of the strategic action.

- *Strategic coverage of security and public order* has many peculiarities and specificities, whereas the security and public order are active domains all the time. Properly, at first glance, it seems that the public order shouldn't be covered from the strategic point of view, but only assured. And the national security is itself a coverage for the other fields and for a quietly and safe life and activity of people, economic companies, institutions and state. To realize it, there aren't involved only the Intelligence Corps, Police, Gendarmerie, the Inspectorate for Emergency Situations and all its components, medical services, ambulance and all the others, but also the political leadership, state institutions, civil society, and even the private economic environment.

- *Strategic military coverage* seems to be a pleonastic form, whereas, in the ancient times, the strategic coverage was predominantly, if not exclusively, military. When we pronounce the *strategic coverage* phrase, we understand that such coverage is first of all, a military one. All countries, irrespective of their political, economical and military point of view, realize and maintain permanently the coverage forces, means and actions, and this coverage is primarily military. And in our country, the deployment of forces, means, resources and devices was always done so as to allow the reaction and action of the country defence forces, particularly to defend the borders and interdict the entering of an enemy on the national territory.





- *Strategic integrated coverage* implies a unified coverage conception of all fields, spaces and actions, at all levels (political, strategic, operational and tactical), obviously, within the allocated resources, so that, as far as possible, all its functions (of insurance, masking, facilitating of the fundamental strategic manoeuvre) be met, without uncovered fields, spaces, devices, operations and actions. The strategic coverage is and it should be an integrated concept. The strategic leadership must take into account the skilful integration of all policies, strategies, operations, actions, resources and devices and must plan in advance the strict realization, updating and putting into operation of such a vital importance concept for the country defence and national security. *Strategic integrated coverage* requires all forms and formulas of strategic coverage to take into account both the general concept of strategic coverage of borders, territory, spaces, operations, devices and actions, and the specificity of each type of coverage.

### Conclusions

Speaking about the extremely numerous and complex goals and objectives of strategic coverage, it is absolutely necessary that all the security and defence components of the state (political, economical, social, societal, informational, ecological, cultural and, especially, military etc.) to participate in this effort. But its last reason is continuing the country training so that it wouldn't be surprised in any of the contemporary conflictuality forms, be it atypical, asymmetric or hybrid or the implementation forms of strategies, tactics and procedures of the modern war.

In defining this strategic action, a paradigm change must be done, in the sense that it shouldn't be considered a purely military action, but a form of strategic action at national level, being stressed the interinstitutional character.

It is necessary to cover not only the spaces, from the geographic point of view, of the infrastructure etc. but also of the areas of manifesting the economic and social, the cognitive and morale field, cybernetic protection/defence etc. We need to maintain the concept by adapting it to the contemporary military

phenomenon.

The complexity of the political and strategic situation, as well as the contemporary military phenomenon implies flexibility and doctrinal adaptation, and also the conclusions with valences both for strategic theory, and also in the strategic practice, as follows:

- a. the need for the conceptual reconsideration and the adequacy of the strategic coverage to the current security environment in agreement with the concept of extended national security;

- b. recognising the permanent character of the strategic coverage, materialised in peacetime, manifestation of strategic security;

- c. important element of strategic deterrence;

- d. complex process with multiple valences and manifestation throughout the country;

- e. inter-institutional cooperation becomes extremely important in the coordinated and integrated answer to the asymmetric, hybrid threats and atypical conflicts;

- f. strategic command and control implies the existence of some management structures to respond to the need of inter-institutional cooperation and coordination.

*The extended strategic coverage* is not a new type of coverage, nor a simple summation of all types of strategic coverage, but a way to achieve total coverage of the borders, territory, spaces, devices and actions, holistic, so that each of the coverage forms to benefit from the advantages of each other and to bring more efficiency for the system as a whole. The extended strategic coverage is one of permanent type. It is ensured in any conditions and it is related to the national security and safety, being, at the same time, an important form of manifestation of the strategic defence.

*Translation from Romanian  
by Alina ALBU*



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# HYBRID WARFARE – THE NEW FORM OF CONFLICT AT THE BEGINNING OF THE CENTURY

Răzvan MUNTEANU\*

*The recent events in Ukraine have driven the term “hybrid warfare” out of the bailiwick of specialists and into the public discourse. For the first time, it lies at the boundaries of Europe and NATO, risking to export insecurity in the above mentioned areas, therefore this article intends to identify its fundamental characteristics.*

*Technological revolutions led to the transformation of warfare, giving it new dimensions, especially that the boundary between military and civil areas sometimes tends to be more and more uncertain. Therefore, in expert analyses, hybrid warfare is used in the same time with the term “conflict”, as in the present case. The use by state or non-state actors of conventional or non-conventional means of combat and also of political, economical, social, humanitarian, diplomatic and informational measures, alongside with the involvement of the local population, are featured as some of the defining elements of hybrid warfare.*

**Keywords:** *hybrid warfare, asymmetric threats, security, proxy war, strategic thinking, crisis, non-state actors, international relations, geopolitics.*

## Introduction

More than a decade later (than the fall of USSR), a new type of conflict is brewing at European Union’s and NATO’s borders. The annexation of Crimea by the Russian Federation, after the pro-Russian paramilitary forces occupied administrative buildings and supervised the referendum on the incorporation of the peninsula in the Russian state, and also the secessionist movements that manifested in eastern Ukraine, do not fall in the category of classic armed conflicts in Europe. The use of military troops without national trappings, of asymmetric battle tactics and also of psychological and media measures are only a few of the specific characteristics of this form of conflict, named by military strategists *hybrid, special or non-linear warfare*. Although highly publicized in the Western media with the outbreak of the Ukrainian crisis, hybrid warfare is not exactly a new term in expert analyses, having been used for the first time in 2006 as a result of the conflict between Israel and Hezbollah. All these events not only threat EU and NATO security, but also raise serious questions with regards to the validity of international treaties. at the expense of national interests, Moscow itself, alongside Washington and London, being the guarantors of the Ukrainian territorial integrity

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\* Răzvan MUNTEANU, PhD student in Political Sciences at the National University of Political Studies and Public Administration in Bucharest, Romania is researcher and project manager for Middle East Political and Economic Institute, General Director of newsint.ro and Columnist for “Adevărul”. E-mail: razvan.munteanu@newsint.ro



as a consequence of the Budapest Memorandum, signed in 1994.

The paramilitary Shiite group used separate cells, specific to guerilla troops, in coordination with regular troops; also, it fired medium and long range missiles, shooting down planes and destroying Merkaval IV battle tanks. All this time, Hezbollah managed to use new media technology, uploading in the cyberspace photo and video materials, winning the sympathy of the Muslim community, as well as its support for the duration of the conflict.<sup>1</sup> All of these, through the tactical surprise that it had created, transformed Hezbollah in a symbol of Arab resistance in the face of Israel. As in the case of terrorism, for example, there is not a unanimously accepted definition with regards to hybrid warfare, which remains a concept that still awaits specifications. In 2010, NATO Military Working Group offered the following definition: “a hybrid threat is one posed by any current or potential adversary, including state, non-state and terrorists, with the ability, whether demonstrated or likely, to simultaneously employ conventional and non-conventional means adaptively, in pursuit of their objectives<sup>2</sup>”, and in May 2015, NATO Secretary General, Jens Stoltenberg, defined the concept as follows: “hybrid warfare combines different types of threats, including conventional, subversion and cyber<sup>3</sup>.” In turn, the European Parliament drafted in June 2015 an analytical document that draws the following conclusion: “hybrid war is a situation in which a country resorts to overt use of armed forces against another country or a non-state actor, in addition to a mix of other means (i.e. economic, political and diplomatic.)<sup>4</sup>”.

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<sup>1</sup> Alex Deep, “Hybrid War: Old Concept, New Techniques”, in *Small Wars Journal*, March 2, 2015.

<sup>2</sup> Andis Kudors, *Hybrid War - A New Security Challenge for Europe*, Centre for East European Policy Studies, available at <http://www.parleu2015.lv/files/cfsp-csdp/wg3-hybrid-war-background-notes-en.pdf>.

<sup>3</sup> Tom Porter, *EU and NATO to step up cooperation to counter Russian ‘Hybrid Warfare’*, International Business Times, May 15, 2015, available at <http://www.ibtimes.co.uk/eu-nato-step-cooperation-counter-russian-hybrid-warfare-1501485>.

<sup>4</sup> Patryk Pawlak, *Understanding hybrid threats*, European Parliamentary Research Service, June 2015, available at [http://www.europarl.europa.eu/RegData/etudes/ATAG/2015/564355/EPRS\\_ATA%282015%29564355\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/ATAG/2015/564355/EPRS_ATA%282015%29564355_EN.pdf).

### 1. The need for conceptualization

Despite its postmodern characteristics, analysts like military strategist Colin Gray<sup>5</sup> say that in reality war remains the same and hybrid warfare is nothing more than the continuous uses of classic tactics, because since ancient times, armed combat had been based on the use of asymmetric forms of warfare that speculated the vulnerabilities of the opponent.<sup>6</sup> Thus, some authors consider that any form of conflict can be a hybrid one as long as it does not imply conventional means of combat<sup>7</sup>, which is why, for example, we could take actions such as setting building on fire or poisoning wells, as medieval elements of hybrid warfare, but these are nothing more than simple unconventional methods of carrying battle, without individualizing a certain type of war. Such a classification can’t be sufficient, risking to mislead any attempt to prevent and counteract hybrid warfare, which proves to be much more complex. Eventually, at all times during history, combatants have resorted to any type of method and means of fighting in order to achieve their objectives, never hesitating in conjunctively using conventional and non-conventional means of combat.<sup>8</sup>

For Bill Nemeth, an officer with notable achievements in the U.S. Navy, hybrid warfare is “the contemporary form of guerrilla warfare that employs both modern technology and modern mobilization methods<sup>9</sup>”, while Frank Hoffman defined in 2007 this type of conflict as being “the war that uses conventional capabilities,

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<sup>5</sup> Dr. Colin Gray is a professor at Reading University where he chairs the Center for Strategic Studies. He held the position of security adviser for both British and American government administrations, being the author of *Modern Strategy* (Oxford University Press, 1999).

<sup>6</sup> Van David Puyvelde, *Hybrid war – does it even exist?*, NATO Review (2015), available at <http://www.nato.int/docu/review/2015/Also-in-2015/hybrid-modern-future-warfare-russia-ukraine/EN/>.

<sup>7</sup> *Ibidem*.

<sup>8</sup> Petre Duțu, *Amenințări asimetrice sau amenințări hibride: delimitări conceptuale pentru fundamentarea securității și apărării naționale*, Bucharest, “Carol I” National Defence University, 2013, p. 46.

<sup>9</sup> “Hybrid vs. Compound War”, in *Armed Forces Journal*, October 1, 2009, available at <http://www.armedforcesjournal.com/hybrid-vs-compound-war/>.



irregular battle tactics and terrorist acts, including generalized violence, coercion and criminal activities”<sup>10</sup>

Frank Hoffman, together with James N. Mattis, published in 2005 the famous article *Future Warfare: The Rise of Hybrid Wars*, in which the two theoreticians were foreseeing the new types of conflicts the United States will face in the short term future. In their conception, hybrid warfare is a mix of military and non-military actions, where cyber attacks, informational warfare or terrorism and guerilla war type tactics will be present.<sup>11</sup>

All the above definitions highlight the complexity of hybrid warfare, which implies several other elements beside the use of conventional and non-conventional means of combat. War has not been an art for a long time, becoming a real science of strategic thinking, thus, evolving into new dimensions with the passage of time.

## 2. From proxy to hybrid. The rise of the new type of conflict

The current crisis in Ukraine has brought into discussion the conceptual limitations between hybrid warfare and proxy wars<sup>12</sup>, the latter coming into force during the Cold War, as a constant of a bipolar world marked by a realist paradigm where Great Powers aimed at stopping the geostrategic advance of those who threatened their status in the international arena.

According to political science writer, Karl Deutsch, proxy wars are defined as being “an international conflict between two foreign powers, fought out on the soil of a third country; disguised as a conflict over an internal issue of that country; and using some of that country’s manpower, resources and territory as a means for achieving preponderantly foreign goals and foreign strategies<sup>13</sup>”, while Andrew Mumford

argues that proxy wars are “conflicts in which a third party intervenes indirectly in order to influence the strategic outcome in favor of its preferred faction<sup>14</sup>”.

Non-state actors, usually represented by terrorist or paramilitary organizations, are turning into a umbrella for state actors that offer them arms, money and even political support in order to achieve certain strategic interests. In this context, state A tries, through a third party, to impose its national interest in a state, B<sup>15</sup>, like the United States did in Afghanistan during the 1979-1989, when logistic and financial support was given to the mujahedeen that were opposing the Soviet invasion.

In the Middle East, one of the most complex regions globally, proxy wars are quite often, non-state actors being supported by regional powers in order to achieve their geopolitical interests.

In Syria, for example, Qatar and Saudi Arabia sustain Wahhabist factions, while Iran did not hesitate to show its sympathy for the current regime in Damascus, which it supports through Hezbollah and other Shiite paramilitary groups. But if Riyadh and Doha carry out a common policy with regards to limit Tehran’s influence, it did not happen the same in Egypt, where Qatar supported the Muslim Brotherhood, as opposed to the Saudis, who are partners of the current president’s military regime.<sup>16</sup> Yemen is also a relevant example, Washington and Riyadh accusing Tehran countless times for its support offered to the Houthi rebels. A rebel Shiite Zaidi tribe controlling Yemen, under Iranian influence, would allow Tehran to indirectly control the Gulf of Aden and Bab el Mandeb strait, two strategic points in sea trade and most importantly fossil fuel transport from the Persian Gulf to the

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*Washington Post*, October 24, available at <http://www.washingtonpost.com/blogs/monkey-cage/wp/2014/10/24/is-libya-a-proxy-war/>.

<sup>14</sup> *Ibidem*.

<sup>15</sup> Andrew Mumford, “Proxy Warfare and the Future of Conflict”, in *The RUSI Journal*, Volume 158, Issue 2, available at <http://iisonline.net/proxy-warfare-and-the-future-of-conflict/>.

<sup>16</sup> Jon B. Alterman, “The Age of Proxy Wars, Center for Strategic and International Studies”, in *Policy Brief*, May 2013, available at [http://csis.org/files/publication/0513\\_MENC.pdf](http://csis.org/files/publication/0513_MENC.pdf).

<sup>10</sup> Frank G. Hoffman, “Conflict in the 21<sup>st</sup> Century: The Rise of Hybrid Wars”, in *Potomac Institute for Policy Studies*, December 2007, p. 8, available at [http://www.projectwhitehorse.com/pdfs/HybridWar\\_0108.pdf](http://www.projectwhitehorse.com/pdfs/HybridWar_0108.pdf).

<sup>11</sup> Valerică Cruțeru, “On Contemporary Warfare: Short Review of Specific Concepts”, in *Revista Academiei Fortelor Terestre*, No. 3/2014, pp. 231-237.

<sup>12</sup> Wars fought through third parties.

<sup>13</sup> Frederic Wehrey, “Is Libya a Proxy War?”, in *The*



Mediterranean Sea. At the same time, Iran would easily get access to the Red Sea from where it could more easily arm groups like Hamas, posing in the leader of the Palestinian cause, which would give it the possibility to export its Islamic revolution to the entire Middle East.

The Russian Federation defines the crisis in Ukraine according to its own interests, as a proxy war, where both the West and Moscow support factions that they deem as legitimate.

As Yemen implies for Iran a specific target, Crimea has a significant geopolitical importance for the Russian Federation, and not an economic one, giving it the option to project power in the Black Sea.<sup>17</sup> Finally, Ukraine is in geopolitical terms, *vital space* for Russia, extremely important in assuring its own security, and the transfer of this space in the West's sphere of influence is impossible to accept for a system that looks at the international relations scene through a modernist lens, based on power balance and not through a postmodernist lens, like the EU member states, that partly give up their national sovereignty in order to build a new political and economical architecture.

A proxy war in Ukraine would position Moscow not just as a supporter of the separatist rebels, fact they have already accepted, and not as an aggressor state, which through subversive maneuvers, fights a new type of conflict to the territory of another state actor. This is in reality hybrid warfare that incorporates the characteristics of proxy war through the possibility of using third party actors (like the case of the "*little green men*" or the separatist rebels) in order to preserve the surreptitious nature of the aggression, bringing new elements such as information technology, advanced battle systems but most important, cyber, informational and psychological warfare components.

Following the events of Ukraine, James Sherr, analyst for Chatham House thinktank, notes that the hybrid warfare tries to weaken the structures of the racked state, without it becoming conscious in real time of the aggression that it is being subject to.<sup>18</sup> In this respect, the best example is

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<sup>17</sup> Gheorghe Văduva, "Război hibrid sau conflict geopolitic cu geometrie perversă?", in *Univers Strategic*, An V, nr 3(19), p. 18.

<sup>18</sup> James Sherr, "NATO Allies Brace for Russia's

that offered by the propaganda and informational war that the Russian Federation used in Crimea and eastern Ukraine, where, for the better part of the last twenty years, radio and TV stations controlled by Moscow were the main source of information for the local population.

Thus, the gradual spread of the idea that ethnic Russian will become second grade citizens starting with the signing of the Association Agreement with the EU made the people of Crimea to accept, with an overwhelming majority, the annexation of the Peninsula by the Russian Federation on 18<sup>th</sup> of March, 2014.

A study made by John Laughlin and Gerard Toal in the spring of 2015 concluded that 84% of ethnic Russians and Ukrainians in Crimea support this policy, while 85% of those who responded did not identify themselves as European citizens.<sup>19</sup> Surveys prove the success of the Russian propaganda machine that led to the situation where Moscow's point of view was the only one on which public opinion was based in the region.

### 3. The delimitations between national and international conflicts

The presence of an assumed proxy war and not a hybrid one is being speculated by the Russian Federation through the classification of the Ukrainian crisis as a civil war, a domestic conflict, rather than a conflict between different States, which would position Moscow as one of the warring parties. But this would limit to military and logistic support only for the separatists, which is not true.

First of all, the annexation of Crimea is an international conflict according to international law norms, as a consequence of violating the sovereignty of a national state and the use of armed forces.

The blockade of sea ports through military means, the use of Russian soldiers stationed in

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Hybrid Warfare", in *Defense News*, available at <http://www.defensenews.com/story/defense/international/europe/2015/03/18/nato-allies-brace-for-russias-hybrid-warfare/24979545/>.

<sup>19</sup> Michael Kofman; Matthew Rajansky, "A Closer Look at Russia's 'Hybrid War'", in Wilson Center, *Policy Paper*, no.7, April 2015.

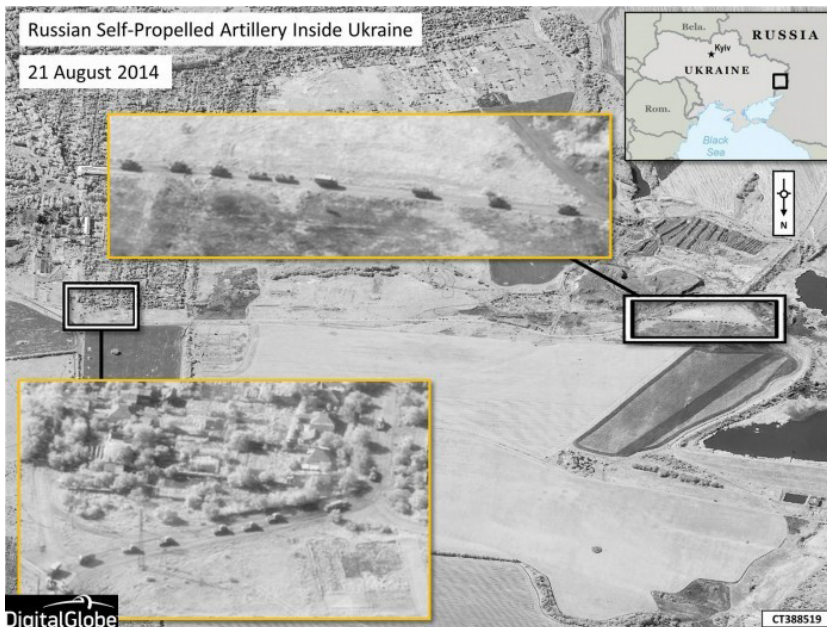
a foreign state against it and the operations to overtake and annex are actions that, according to Resolution 3314 of the General Assembly of the United Nations, prove the aggression that the Ukrainian state is being subjected to<sup>20</sup>.

Furthermore, looking back to a period much closer to the present, we see that during the 1979 Soviet invasion of Afghanistan, Moscow used 700 Muslim soldiers dressed in Afghan military outfits in order to take over military bases, media institutions or government buildings, including the presidential palace.<sup>21</sup> All of these strike as very similar to the actions undertaken by the “*little green men*”, before the annexation of Crimea by Moscow, which suggests a *modus operandi* specific to Russian special structures.

Obviously, the events in eastern Ukraine confirm the existence of an international hybrid conflict, because separatist fighters, without the direct implication of a foreign power, could not possess the necessary capabilities to use informational, cyber, economic intelligence warfare elements, at the same time with armed combat. If the numerous terrorist attacks in

Kharkov, Mariupol or the over 200 similar failed actions, counteracted in Kyiv by the Ukrainian intelligence services, can be done without a serious involvement of Moscow, the same cannot be said for cyber attacks. For example, a new version of the Black Energy virus has been used in the summer of 2015 to steal classified Ukrainian government information. Furthermore, this kind of attacks have been used to falsely present the results of the latest presidential elections, where ultranationalist leader Dmitry Yarosh has been declared the winner, with 35% of the votes, while Petro Poroshenko, the real winner, was placed second with just 29% of the votes. The aim was to weaken the faith of the population in the new political elite, enhancing the feeling that Ukraine is heading towards a fascist regime, as claimed by the Russian propaganda.

Ultimately, the existence of heavy weaponry in the rebels arsenal that, according to several military experts, comes from the Russian Rostov military base, the existence of former Russian intelligence officers in the Luhansk and Donetsk command groups, officers like Igor Strelkov or Alexandr Borodai, or several NATO satellite images (as seen in the picture below) which prove that the Russian army has illegally crossed the border with Ukraine and got involved in armed combat on its neighbor's territory, are undeniable proofs of the hybrid conflict that Moscow has orchestrated in Ukraine.<sup>22</sup>



**Figure no.1:** NATO satellite images that prove the crossing of the Ukrainian border by the Russian army<sup>23</sup>

<sup>20</sup> Serghei Velenciuc, “Conflictul din Ucraina: între conflict intrastatal și război interstatal”, in *Fundația Universitară a Mării Negre*, 13 noiembrie 2014, available at <http://fumn.eu/conflictul-din-ucraina-intre-conflict-intrastatal-si-razboi-interstatal/>.

<sup>21</sup> Nicu Popescu, “Hybrid tactics: neither new nor only Russian”, in *European Union Institute for Security Studies*, January (4) 2015, available at [http://www.iss.europa.eu/uploads/media/Alert\\_4\\_hybrid\\_warfare.pdf](http://www.iss.europa.eu/uploads/media/Alert_4_hybrid_warfare.pdf)

This war has become a challenge for the security of NATO and the EU that now have the possibility, for the first time, to manage a crisis of immense interest, after the two great international organizations became strategic

<sup>22</sup> Serghei Velenciuc, *op. cit.*

<sup>23</sup> Official NATO website, available at [www.nato.int](http://www.nato.int).



partners, with the occasion of the Wales Summit. Even though officials from the Baltic states denounce informational warfare via pro-Russian TV stations and online outlets and printed newspapers that convey messages meant to escalate social tensions through increasing dissatisfaction and anti-nationalist sentiment amidst the Russophile population. According to MERCATOR data<sup>24</sup>, if in Lithuania we observe a 8% ethnic Russian population, which translates to 304.000 inhabitants from a total of 3.7 million, the situation is far more complicated in the other two Baltic states. In Estonia we have 409.111 ethnic Russians which translates to 28% from the total of 1.5 million people, while in Latvia, the Russian minority of 900.000 represents 36% from the total of 2.5 million inhabitants.

In response, NATO forces have to think of a reply that not only counteracts but also preempts this type of conflict, taking actions on the basis of four dimensions: construction (the identification and reduction of the potential for conflict), deterrence (dismay towards aggression taking place), commitment (the use of diplomatic and military components to solve the conflict) and stabilization (putting into practice a program that stabilizes and secures the conflict area).<sup>25</sup>

Constant innovation and adaptability will be the highlight of this war for the future but, on the other hand, as a result of a fairly complicated command chain, adaptability is an extremely hard process to accomplish and increasingly difficult to be supported continuously, when it comes to classic military structures. As a consequence, the latter see themselves forced to create more flexible command structures in order to increase the swiftness of the decision-making process.<sup>26</sup>

### Conclusions

The conflicts of tomorrow will not be easily classified as conventional or irregular,

<sup>24</sup> MERCATOR, *Minority languages in the Baltics: a delicate matter*, available at <http://www.mercator-research.eu/minority-languages/language-factsheets/minority-languages-in-education-in-the-baltics/>.

<sup>25</sup> Gabriel Anghel, "Particularitățile conflictelor viitoare. Amenințările hibride. Război /Conflict hybrid", in *Infosfera*, no 1/2011, pp. 56-64.

<sup>26</sup> *Idem*.

the borderline between the two, as well as the one between combatants and non-combatants, becoming more and more complex. Being a product of human creativity, hybrid warfare is in a continuous development, as it does not exclude the use of biological, chemical or anti-satellite, command and control destruction programs and the list could go on. Hybrid warfare spans for an unlimited period of time, as it is not a spontaneous form of conflict. Despite the appearances, it is forged in strategic thinking laboratories, well before it is put into practice.

Specific to asymmetric forms of combat, the adversary is not defined properly, without a central command, its actions being planned and organized in a decentralized manner, making almost impossible to detect links between different elements.

Even though it represents a concept that awaits more specification, we can identify a series of characteristics that, in most part, used simultaneously, are particular to hybrid warfare:

- the combination of conventional and non-conventional ways of combat;
- the simultaneous deployment on several dimensions: political, economic, social, societal, diplomatic, subversive;
- the combination of military and non-military actions;
- emphasis on cyber and informational warfare;
- the battle to win the trust of the civilian population within the area of conflict;
- the destabilization of a state through polarizing its society;
- the use of clandestine actions or of third parties in order to mask armed aggression;
- not declaring war;
- the ability to be practiced by both state and non-state actors or terrorist groups;
- resort to terrorist or organized crime actions;
- the use of psychological warfare.

The development of technology will not be enough to win the wars of the future. The insurance of cyber security and the strengthening of intelligence systems that should timely identify security vulnerabilities must be among the top priority actions, resorting to a type of adequate





means of prevention and response. In this regard, we have to mention corruption and the absence of good governance as the main systemic dysfunctions that can render any state vulnerable to these new types of threats, while special attention must be given to societal security, one of the pillars of internal security. Otherwise, it has been proven how Russia took advantage of the weak social cohesion in Ukraine, a divided state between East and West, speaking from an identity point of view.

With regards to how to counteract informational warfare, we consider American colonel (ret.) John McCuen's vision as timely, that suggests the creation of counter-organizations, just as some of the counterterrorist structures for example, which must identify and preempt any possibility and initiative of the enemy to manipulate the opinion of the civilian population that inhabits the battlefield.<sup>27</sup> Of course, such a strategy must take into account the identification of local leaders and elites and their transformation into influence counter-agents that will maintain social cohesion. However, in order to render efficient the battle against misinformation and manipulation, there is an implicit need to develop critical thinking amidst citizens through the development of special programs in schools, high schools and universities.

The control of critical infrastructure and transportation and communication hubs (ports, airports, etc.) will be a top priority of the new types of conflicts, offering an important strategic advantage. At the same time, cities and large metropolitan areas are becoming a new type of frontline where rebel troops, part of the irregular forces, could infiltrate with the aim of keeping its undercover nature and from where they would organize new attacks, implicitly terrorist in nature. The borderline between insurgents and civilians has often become hard to distinguish while making reaction time more complicated. A good example is in Yemen where U.S. troops fight against Al Qaeda terrorists. Often hidden in the midst of the local population, Jihadists are hard to pinpoint because not once, but many times, American coordinated drone strikes ending with

civilian casualties, producing a boomerang effect that leads to the surge of anti-American sentiment amidst the population and even to support for terrorist groups.

The enhancement of the image, the projection of power in the face of the enemy and winning the trust of the local population are becoming mandatory conditions in order to win this type of conflict, thus transforming the military and civilian binomial into the basis for the security of any nation state.

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<sup>27</sup> John J McCuen, "Hybrid Wars", *Military Review*, Mar/Apr2008, Vol. 88 Issue 2, p. 111.



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# ASPECTS REGARDING INFORMATION OPERATIONS IN OPERATIONAL ENVIRONMENTS WHERE IMPROVISED EXPLOSIVE DEVICES ARE EMPLOYED

*Teodora ZECHERU, PhD\**  
*Cătălin SĂRACU\*\**

*Following the events and the conflicts in recent years, it can be said that regardless of scale and participating actors, improvised explosive devices (IEDs) still represent a real threat. From the political-military, social or economic viewpoint, there is no pattern applicable to all theaters of operations, the defining elements, specific to IEDs use being more dependent on the nature of the conflict, the actors involved and the existing resources.*

*In this context, INFO OPS have as main targets information, the process or the information cycle of the adversary, and their own information system. All the INFO OPS capabilities must be conducted considering a unitary concept, as mission objectives targeting to reduce or even to eliminate threats from the use of IEDs. Given the trend in “cyberweapons” development for offensive use, INFO OPS must be prepared for the powerful advantage they can gain against terrorist organizations: cyberattacks can add capabilities to conventional (kinetic) and intelligence available for the governments, thereby increasing their impact.*

**Keywords:** *kinetic operations, cyberthreats, improvised explosive devices (IEDs), INFO OPS, tactical advantage.*

## Introduction

Assessing the principles applied in the recent conflicts, it can be said that, regardless of the scale and participating actors, improvised explosive devices (IEDs) represent a real threat, in some cases being even the main cause of the losses suffered by the coalition forces<sup>1</sup> involved in peacekeeping, peacebuilding and peacemaking or reconstruction of areas affected by the conflict.

Kinetic operations, such as artillery, infantry or aviation offensive or defensive operations, require the application of force to achieve a direct and immediate effect. Non-kinetic operations are operations that seek to influence a target group

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<sup>1</sup> Coalition forces – generic term given for peacekeeping, peacebuilding and peacemaking military forces etc.; e.g., Iraqi Freedom, ISAF, SFOR / KFOR, Resolute Support, etc.

*\* Cpt. eng. Teodora ZECHERU, PhD, postdoctoral fellow at Military Technical Academy, is Senior Researcher and Head of Laboratory of Analysis, synthesis and testing of explosives and explosive-incendiary devices at Scientific Research Center for CBRN Defense and Ecology, Bucharest, Romania. E-mail: teodora.zecheru@nbce.ro*

*\*\* Maj. eng. Cătălin SĂRACU is superior instructor at the Chair of C-IED Courses from the EOD Instruction Base in Râmnicu Vâlcea, Romania. E-mail: saracu.catalin@forter.ro*



through media, CNO<sup>2</sup>, EW<sup>3</sup>, or administrative or humanitarian assistance. It is important to note that many of these operations do not fit perfectly into any of these categories.

From the political-military, social or economic viewpoint, there is no pattern applicable to all theaters of operations, the defining elements, specific to the use of IEDs, being more dependent on the nature of the conflict, the actors and resources involved. IEDs are means of attack used at tactical level. In the vast majority of attacks, the targets are represented by small structures, at platoon level; routine patrols, logistics convoys or even MEDEVAC helicopters arrived to take the wounded were victims of IED attacks. And the implications of these attacks are found at operational or even strategic level. Besides losses, the level of troops' insecurity increases and the degree of trust and acceptance decreases.

The same conflicts have shown that it is extremely important how the conflict is reflected in the eyes of the civilian population in the area of interest, such an event affecting the force in the area, potentially discrediting both coalition and the host nation security forces. The exposure of the existing situation at a certain moment, the fashion how the event is shown to the international public opinion, the ways of motivating the host nation security forces and coalition forces military represent the main attribute of INFO OPS<sup>4</sup>.

INFO OPS are complex activities/actions, sometimes lengthy in time, other times executed extremely fast to neutralize effects or exploit the results of a successful mission. INFO OPS does not represent the attribute of a single structure, but involves, through specific procedures and methods, the participation of all forces to create a positive image and a safe environment. The degree of success of such activities influences heavily both mission success and the way in which the international public opinion and especially the host nation population approach the conflict at a certain time during its development.

In light of the events of the last period, this

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<sup>2</sup> CNO = Computer Network Operations.

<sup>3</sup> EW = Electronic Warfare.

<sup>4</sup> INFO OPS = Information Operations.

article aims to present only a few specific INFO OPS issues that are relevant for IED countering. The theaters of operations in Afghanistan, Bosnia or Iraq - all are lessons learned for INFO OPS in relation with C-IED<sup>5</sup>.

### 1. INFO OPS structure in the context of C-IED activities

INFO OPS have as main targets both information, process or information cycle of the adversary, and their own information system. INFO OPS entails the integration of basic capabilities of EW, CNO, PSYOPs<sup>6</sup>, MILDEC<sup>7</sup> and OPSEC<sup>8</sup>, along with other specific capabilities, in order to influence and conceal adversaries for the protection of their own forces.

There is a possibility that some of the INFO OPS objectives to be obtained by destroying important targets (key leaders, infrastructure targets, etc.). There are also a number of specific capabilities, which have an important role in achieving the overall objectives of the mission.

**PSYOPs** is the main method of influencing the enemy. In case of asymmetric conflicts, where counterinsurgency operations are a major civilian-confidence-building method (the main effort of the COIN<sup>9</sup>), PSYOPs is an effective tool only if all the details regarding the target are known, and the action is approached through appropriate methods. PSYOPs must be prepared and executed specifically on the target group and the established objectives. One can have a great success in such actions by cooptation of local leaders with great influence on the population. An example in this regard is the elections held in Iraq in early 2005, when polls showed that less than a quarter of the population will come to vote. After recruiting some major religious leaders, who agreed to send messages like "Allah said it is good to go to vote!", election day presence turnout was over 80%.

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<sup>5</sup> C-IED = Counter-Improvised Explosives Devices.

<sup>6</sup> PSYOPs = Psychological Operations.

<sup>7</sup> MILDEC = Military Deception.

<sup>8</sup> OPSEC = Operations Security.

<sup>9</sup> COIN = Counterinsurgency.



Further, messages such as “*IEDs do not differentiate between military and civilians! Reject their use! Inform the authorities about any suspicious activity that may be related to IEDs!*” can be implemented. Two objectives are met by such actions: population is influenced so as not to engage in IED-network actions, while helping to raise awareness of the danger involved by these devices. They also can send messages through human intermediaries (spies), so that leaders of terrorist organizations be informed that their premises or means of attack have been detected.

Another specific method is influenced by *Presence, Posture and Profile (PPP)*<sup>10</sup>. All the forces participating in the mission should understand the importance of how to manifest their presence in areas of responsibility. A correct PPP (proper behavior and attitude) will present the coalition forces ability to create a safe climate in the area of responsibility and will greatly influence the local population’s position versus the military actions of the coalition forces. In order to get a correct PPP, every military interacting with locals must understand thoroughly the mission objectives, the intention of the force commander and commanders’ role at tactical level in transmitting messages.

*OPSEC and INFOSEC*<sup>11</sup> – type actions protect own forces actions against enemy attacks. Leaks of information occurred rarely, which, although not essential in OPSEC or INFOSEC, resulted in offering important opportunities for the enemy, for example when using the media for propaganda (pictures and movies annoying for certain religions<sup>12</sup>) or instigation. Unfortunately, only during the past month (June-July 2015), two cyberattacks occurred on existing networks in Pentagon, one of them, on passing offline an unclassified email system and assigned to Russia, being an event that affected nearly

4000 employees of the Joint Chiefs of Staff<sup>13</sup>, and the other creating the largest breach yet in government digital data, in the human resources department of the White House being stored information on more than 20 million people (and more than 4 million federal agents). This latter attack has been attributed to China<sup>14</sup>.

*KLE*<sup>15</sup> is an important opportunity to obtain essential information on how the local population considers the coalition forces and the procedures to follow for influencing the population. In addition to the official character of the meeting, here one can find, sometimes in very detail, people needs and problems and, thus, ways of action (CIMIC<sup>16</sup> projects), and information on the IED-networks activity in the area (traffic and storage of materials necessary for IED manufacture, preparation of attacks, appearance of unknown persons in the area, etc.). There have been cases in which coalition forces military were warned on the existence of old minefields from previous conflicts, far more dangerous as there were not listed on the maps used by coalition forces. There are also situations where some information is disseminated, but on a small scale, to achieve a particular objective: for a successfully executed KLE, it is necessary that all the leaders concerned to attend the meeting; thus, information cannot be totally classified in terms of date and location when there is a commitment of key leaders.

*EW* has a major role especially in two areas: electronic jamming and electronic deception. ECM<sup>17</sup> electronic jamming has become within a very short time an effective means of protection against RCIED<sup>18</sup>. Mobile or stationary jamming systems, installed on vehicles, saved many

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<sup>10</sup> Andrew Sullivan, “Some considerations in developing effective messaging. The SUCCEs framework and military influence activities”, *DRDC CORA CR 2011-004*, 2011.

<sup>11</sup> INFOSEC = Information Security.

<sup>12</sup> Teodora Zecheru, “NATO Challenges in the context of hybrid threats evolution”, *Strategic Impact*, vol. 55, no. 2, 2015.

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<sup>15</sup> KLE = Key Leaders Engagement.

<sup>16</sup> CIMIC = Civil Military Cooperation.

<sup>17</sup> ECM = Electronic Counter Measures.

<sup>18</sup> RCIED = Radio Controlled IED.



lives, but they are also an important means for transmitting messages on technological superiority versus opponent limitations capabilities. The technology has been developed and used so much that reached jamming situations in which even their own systems were affected (e.g., the radio control system of EOD<sup>19</sup> intervention robots). Such situations were resolved by an appropriate and flexible frequency management, while taking into account the communication needs, next to the threat represented by RCIED.

Through their specific missions, *CIMIC* structures provide relevant information on the position of civilian population. Although it should never be regarded as a source of information like HUMINT<sup>20</sup>, CIMIC often manages to change the perception and attitude of the civilian population. CIMIC projects that cover important needs of the population are highly welcome and can even change the positions of neutral or hostile population into a favorable one and conduct the coalition forces to obtain invaluable information about insurgents.

Of course, all these capabilities should be conducted in a unitary concept, targeting mission objectives and tactical and operational directives. All elements and capabilities listed here are nothing more than gears in the machinery of INFO OPS, which, implemented correctly, reduce and sometimes eliminate the threat generated by IEDs employment.

### **2. Analysis of the operational environment where IEDs are employed**

The operational environment can be defined as all areas of interest that influence the execution and the success of operations. For the planning and execution of INFO OPS, of a particular interest are the following areas: social, cognitive, physical, virtual and informational, with a particular emphasis on the interrelated dimensions of cognitive, physical and informational<sup>21</sup>. These areas cannot be treated independently, but only

through their relationships.

The *social environment* is very important for setting the final objectives of the operations and the methods used to achieve them. In the case of stability operations, coalition forces main objective is to create a safe environment, allowing security forces and the host nation authorities to manage the situation alone in the area and, of course, creating preconditions for further economic development. Priorities regarding existing threats on the civilian population and the problems they face are taken into account, from water shortages and low literacy to lack of infrastructure and remaining unexploded ordnance hazards generated during the conflict. Other aspects that define the operational environment should also be studied in detail, especially in case of asymmetric conflicts: habits and social regional and religious influences, history and demography of the territory concerned, composition and influence of the political scene, economic development, rate of governmental and non-governmental agencies involvement, etc. A careful analysis of these details reveal once again that no theater of operations resembles another, and more, in the same theater, each region has its own peculiarities. For example, literacy has not been a problem in Iraq, but it has put great problems in Afghanistan. Also, in Afghanistan it has been noticed a major difference in terms of demographic composition and rate of society development, the Northern part being relatively developed versus the Southern one, poor and lacking in resources.

Closely related to the social environment is the *cognitive environment*. The way how local population understands the role of the coalition forces is decisive for the INFO OPS planning and execution. The assessment degree of optimal solutions for solving the population problems is the starting point for creating a secure and prosperous environment. These specific elements for cognitive environment establish the ways of action under INFO OPS. For example, publishing posters and printed documents is ineffective in an area with illiterate population; instead, handing radios emitting on the frequencies used especially

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<sup>19</sup> EOD = Explosive Ordnance Disposal.

<sup>20</sup> HUMINT = Human Intelligence.

<sup>21</sup> Joint Publication 3-13 – Information operations 2012 incorporating Change 1 2014.



by PSYOPs structures can have a high success.

The *physical environment* represents also an important element in the analysis of the operational environment. An analysis of the existing resources and of the exploitation opportunities may lead to future courses of action in economic development for the host nation government. Some CIMIC or non-governmental agencies projects may also help in this direction (construction or rehabilitation of roads, railways, etc.). The geographical relief analysis is very important for the establishment of the operational environment peculiarities, not necessarily as concerning the discretion of military structures, but highlighting and sometimes explaining the existence of isolated communities or the lack of an adequate infrastructure.

The *virtual environment* is a real challenge in terms of INFO OPS. Although, unlike conventional weapons systems, developed and used for centuries, the Internet has emerged only a few decades ago, it is now considered to be the means of attack with the greatest potential spread worldwide. Modern society is a society dependent over 98% on the web<sup>22</sup>, from banking, personal information, medical coverage and communication. The economy is based on information transmitted via the Internet, through transactions and global connections. Although not as terrifying as a nuclear war, cyberattacks can damage the physical infrastructure, may cause loss of lives, can cause fear and panic, thus leading to rapid destabilization of the developed societies.

As in the case of weapon systems, also in the case of Internet appeared pro and con opinions on the opportunities and threats of, demonstrating the likelihood of becoming an important platform for criminal and/or terrorist activities. If, at first, the discussion raised concerns on the use of internet networks by terrorist organizations for attacks against critical infrastructure (transport systems, energy delivery, etc.) – cyberterrorism, and information technology use in armed conflict - cyberwarfare, was not considered, the vision on

the Internet use has completely changed after the 2001 attacks in the U.S., when it was reported that terrorists have used this communication system in preparing their attack. On this occasion, they have found other uses of the Internet for terrorist purposes: financial cyberattacks, followers' recruitment, fund raising for financing various terrorist actions, training for the manufacture of IEDs and IED initiation systems, secret communications, changes in personal/secret databases or antigovernment propaganda.

Cyber terrorist operations aim at large-scale objectives, take place globally (people living in different countries, and who join ISIS - Fig. no. 1 depicts the case of Syria<sup>23</sup>), require funding and specialized personnel.

It is extremely easy to publish and present different aspects of the operations, their conduct or aspects regarding the completion of various projects, but it is very difficult, due to the high degree of accessibility to Internet, to establish a certain target group. It becomes obvious that in situations where the theater is located in an area where the Internet is inaccessible to the local population, targets are international public opinion and the host nation leaders, who have access to internet or live outside the conflict area.

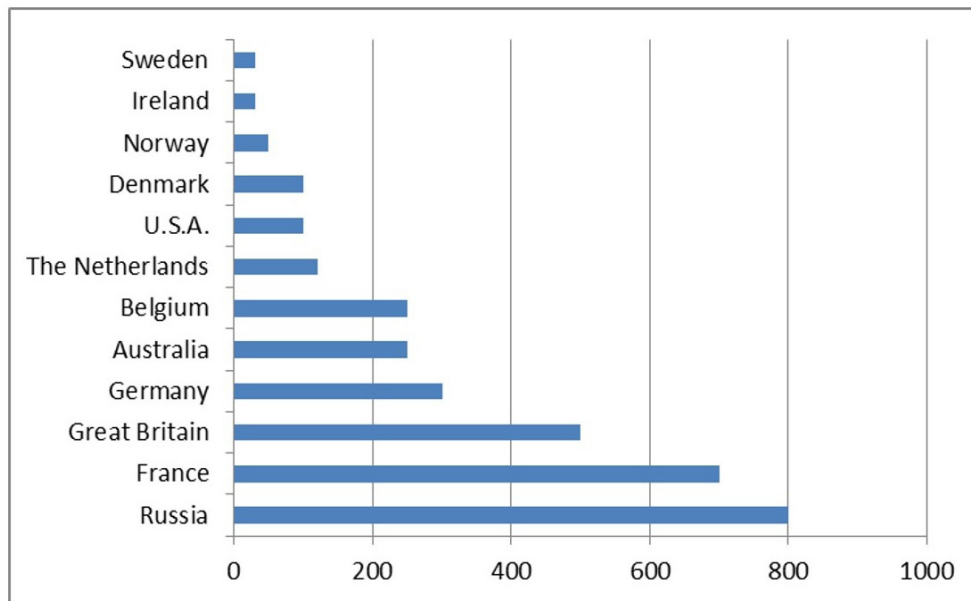
The actions undertaken by the enemy to counter INFO OPS are not to be neglected. Countering these threats encounters the same difficulties as cybercrime prevention in general, but the use of virtual networks by itself brings unique challenges to INFO OPS. Thus, an important number of websites that show how to obtain different explosive substances and combinations for the manufacture of IEDs only from substances that can be purchased from the free market, how to commit crimes both online and offline, and URL sites with search engines for key terms or detailed maps for strategic locations, were blocked.

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<sup>22</sup> Jaak Aaviksoo, "Cyberattacks against Estonia raised awareness of cyberthreats", *Defence Against Terrorism Review*, vol. 3, no. 2, 2010.

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<sup>23</sup> [www.infoopshq.com](http://www.infoopshq.com), accessed on 02.08.2015.



**Figure no. 1:** Approximate number of jihadists coming from various countries of the world who were in Syria in 2014<sup>24</sup>

Unfortunately, along with the attacks of Anders Breivik in Norway (2011)<sup>25</sup>, of TTP<sup>26</sup> Taliban members in Pakistan (2014)<sup>27</sup> or the more recent suicide attacks in Turkey (2015)<sup>28</sup>, the INFO OPS existence and continuous information processing level in order to prevent attacks has been rewarded with the emphasis deserved. In the first case - fertilizing substances acquisition should have been reported regardless of the amount in which they were purchased; in the second case, the incident occurred in a military school, very likely terrorists being beneficiaries of the contribution of information from people inside; in the third case, Suruç population should have been monitored continuously, given its

<sup>24</sup> *Ibidem.*

<sup>25</sup> Jonathan Nackstrand, "A look back at the Norway massacre", *CBS*, <http://www.cbsnews.com/news/a-look-back-at-the-norway-massacre/>, accessed on 17.04.2015.

<sup>26</sup> TTP = Tehreek-e Taliban Pakistan (Taliban Movement of Pakistan).

<sup>27</sup> Sophia Saifi, Greg Botelho, "In Pakistan school attack, Taliban terrorists kill 145, mostly children", *CNN*, <http://edition.cnn.com/2014/12/16/world/asia/pakistan-peshawar-school-attack/>, accessed on 17.07.2015.

<sup>28</sup> Michael Pearson, Gul Tuysuz, Nimet Kirac, "Dozens dead after terror attack in Turkish border city", *CNN*, <http://edition.cnn.com/2015/07/20/world/turkey-suruc-explosion/>, accessed on 01.08.2015.

proximity to the border with Syria and ongoing conflicts.

*Information environment* is the INFO OPS main battleground. Every information obtained about the enemy must be processed in order to achieve maximum effects and to approach the objectives set. Whether information is obtained by structures of intelligence, or from "open sources", they are often points of origin and rethinking/recalibration of INFO OPS. In some cases, there may be "attacks" in the informational environment, usually through media and internet. The rule is to respond promptly to these attacks by any means, in the view to discredit/compromise information launched by the enemy, the publication authors, or, in some cases, to show the international public opinion that the mistake made by coalition forces was only a regrettably isolated case, which will not happen again. In such cases, the time factor is extremely important because a fast response shows that the situation is known and managed appropriately. A well-structured response, but with a late release to the media, will not have the expected impact.

Social and religious rules represent INFO OPS limitations, becoming restrictive when the target group is the civilian population. These are issues





that need to be taken into account at all times, not few being the situations where the failure to follow these rules has led to serious incidents that have jeopardized the coalition forces. The key to conducting operations in compliance with those rules represent a detailed understanding by all participants in military actions of the livelihoods of local people and the principles that guide the society in the area.

Involvement of other agencies and organizations is also very important for INFO OPS, because these structures interact usually directly with the civilian population. Even if, in some cases, they cooperate with the coalition forces, the effects that their activity produces are mostly positive and emphasize the unity of effort in that area for the obtainment of a secure and prosperous climate.

Besides detailed understanding of society and, thus, finding the most effective ways to act for INFO OPS specialists, the effects generated by a correct PPP demonstrate firstly respect for the values of the host nation, and respect is appreciated worldwide, regardless of the structure and/or the scale of values of that society. Giving respect, confidence and trust are obtained, and confidence and trust result in cooperation – which is of a particular importance for the achievement of operational objectives in C-IED field.

### 3. Concepts and methods for the IEDs risk decrease

In order to identify INFO OPS optimal activities and specific procedures to decrease the threat generated by IED, they must be analyzed in terms of the three pillars of C-IED: AtN<sup>29</sup>, DtD<sup>30</sup> and TtF<sup>31</sup>.

*AtN* involves actions and activities to identify and engage lethal or non-lethal IED-network members, with the ultimate aim to disrupt their networks. INFO OPS role is extremely important, especially in the management of information relating to IED networks, and also in promoting the success of neutralizing IED networks and in

the determination of local people to help neutralize these networks. *HARVEST*-type campaigns for collecting ammunition and weapons from locals have been successful in Bosnia, but also in Iraq or Afghanistan, yielding in a lower level of resources assurance to insurgent networks. More, INFO OPS play an important role in the process of targeting.

*DtD* is the response of the coalition forces to the discovery of IEDs or IED attacks. INFO OPS functions are multiple in this pillar: use of jamming systems, obtainment of information on devices located or to be located (and, therefore, their destruction/neutralization) using CIMIC or PSYOPs structures or within KLE. Correct PPP procedures can even lead to a better protection of the forces while executing missions.

It must be pursued here also the Internet field: the new generation of terrorists use the cyberspace as a real battlefield, with weapons and explosives. Cyberthreats are asymmetrical *per se*: they are cheap and easy to develop, they neutralize the conventional military superiority and the secure position of technologically developed states, leaving them vulnerable.

Within *TtF* pillar, the main objective of INFO OPS is the awareness generated by the IED threat and reminding to all participants in operations on the response/reaction procedures to an incident with IED. Also, any new procedure or method used by the enemy or any new type of IED used in theaters of operations reaches to all concerned, thanks to INFO OPS, the objective of this information being to save lives.

It is foreseen, for the near-by future, a true militarization of cyberspace. An important number of countries assumed the development of “cyberweapons” for offensive use. At this level of development, there is a strong offensive advantage from which INFO OPS can benefit, with very little chance of being countered: cyberattacks on terrorist organizations can combine the conventional (kinetic) and intelligence capabilities available to governments, increasing their impact.

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<sup>29</sup> AtN = Attack the Network.

<sup>30</sup> DtD = Defeat the Device.

<sup>31</sup> TtF = Train the Force.



### Conclusions

INFO OPS activities coordination is essential, as in any other specific area of military actions, such as synchronization of executed actions and, more, unity in effort to achieve targeted objectives. All specialized structures and units at tactical level hold the responsibility, one way or another, on how the local population or international public opinion react to the actions of coalition forces. In a world where image counts a lot in the dynamics of any activity, INFO OPS participates decisively in the success of military operations, regardless of their nature.

INFO OPS is a valuable tool that often acts slowly, with long-term effects. The success of these operations is sometimes difficult to quantify, the INFO OPS targets changing accordingly to the evolution of the society in the host country or to the evolution and the success of military operations.

INFO OPS will never change the reality or the facts occurred. Instead, it is a means to “customize” the reality of the target groups, groups that often have a decisive role in achieving the mission (local population, area leaders, international public opinion that can support military actions, etc.).

Thus, countering IED actions and IED commanded and controlled via the Internet can be carried out with the help of INFO OPS, their role being:

- to obtain the community support through education and awareness, by creating a permanent link between the coalition forces and the civilian population, and an open and continuous dialogue;
- to monitor and ensure borders through prompt interventions in extreme situations and international collaborations at informational, tactical and operational level;

- to maintain state sovereignty by adequate funding of operational and information systems for national security;
- to maintain a high level of tactical, technical, technological and procedural capabilities.

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# A MULTI-CRITERIA ANALYSIS OF AIR COMMUNICATION PLATFORMS WITHIN THE HYBRID OPERATIONAL ENVIRONMENT

*Cătălin CIOACĂ, PhD\**  
*Daniel ȘTEFĂNESCU\*\**

*The air communication platforms, using the accelerated technological progress with spectacular effects in the field of developed performance, takes an important role in providing information regarding connectivity in this field. The requirements which the military communications systems must fulfill are formulated in connection with mission objectives. Quantification of the utility for air communications platforms using binomial multi-criteria analysis and analytic hierarchy process provides decision makers with the basic knowledge needed to increase the operational capabilities of forces. The planning process must integrate the requirement of continuous, secure distance communications under any circumstances.*

*The designed model gives the opportunity to identify the best solutions for increasing the utility of aerial communications platforms (tactical satellites, high, medium and low altitude aerial platforms) in various contexts and scenarios.*

**Keywords:** *Air communications platforms, hybrid conflict, multi-criteria analysis, analytic hierarchy process, strategic decision.*

## Introduction

Accelerated technological progress, information warfare and hybrid threats are some of the challenges which the military organization should provide a quick response to in an attempt to successfully fulfill demanding requirements of missions. Given the demands / requirements of using NATO forces on a growing area (from the Aden Gulf to the Baltic Sea or from Afghanistan to Iceland), extending communications capabilities is a key factor.

One of the features of modern military action is accuracy, and this requires designing highly sophisticated communications architectures<sup>1</sup>. The technologies developed for military communications are complex systems necessary to ensure technical and operational interoperability of military structures in air / space, on land and at sea. The communication flow covers all hierarchical levels (from private to strategic decision-makers from command centers), allowing interpretation of collected

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<sup>1</sup> Saeed H. Alsamhi, N. S. Rajput, "An Intelligent HAP for Broadband Wireless Communications: Developments, QoS and Applications", in *International Journal of Electronics and Electrical Engineering*, Vol. 3, No. 2, April, 2015.

*\* Major Cătălin CIOACĂ, PhD is Lecturer at "Henri Coandă" Air Force Academy in Brașov, Romania. E-mail: catalin.cioaca@afahc.ro*

*\*\* Major Daniel ȘTEFĂNESCU is PhD Candidate in the field of Military Sciences at "Carol I" National Defence University in Bucharest, Romania. E-mail: stefanescu\_d@yahoo.com*



information in accordance with the reality of the action area.

Management of frequency spectrum, mainly represented by bandwidth allocation is another requirement of the military system in the context of growing demands from the civil sector (public and private).

*Network-in-a-box* could be a solution for some of these challenges due to its flexibility and adaptability to the communication requirements of voice, data and video traffic.

Depending on the specific features of military operations, fixed – wired – network infrastructure is not always possible or feasible to achieve (see Table no. 1). Accordingly, communication requirements are met by mobile network

and exploitation;

- capability of interoperability and agility;
- capability of connectivity throughout the area of action.

Within the context described above, the objectives we have set in this paper are (1) to determine the best solution for air communication technology from a group of alternatives, using Multi-Criteria Analysis (MCA) theoretical binomial and the Analytical Hierarchy Process (AHP); and (2) to confirm that the binomial MCA-AHP can be applied as an effective tool to determine the appropriate configuration of the scenario.

Table no. 1: Advantages and disadvantages of communication systems<sup>2</sup>

Advantages	Disadvantages
<b>WIRELESS COMMUNICATIONS</b>	
<ul style="list-style-type: none"> <li>- flexibility and modularity</li> <li>- cost effectiveness</li> <li>- mobility</li> </ul>	<ul style="list-style-type: none"> <li>- jamming sensibility</li> <li>- vulnerability at interception</li> </ul>
<b>Optical Networks</b>	
<ul style="list-style-type: none"> <li>- broadband</li> <li>- transmission quality</li> <li>- resilience to intercept and jamming</li> </ul>	<ul style="list-style-type: none"> <li>- flexibility and reduced mobility</li> <li>- high cost (for new networks)</li> </ul>

infrastructure –wireless – which usually exists, but with some limitations of radio coverage.

The requirements that the military communications systems must fulfill are formulated in connection with mission objectives<sup>3</sup>:

- capability to provide accurate information at the right time and place, in useful format;
- capability to adapt quickly to new requests;
- capability of protection at interception

### 1. Air communications platforms

Aerial platforms for communications provide new opportunities for both the civilian and military field. Chronological evolution of these systems began in the ‘80s, including, at a first stage, the emplacement of the high-altitude platforms aboard aircraft (High Altitude Platform - PAH), with an operational altitude between 17 and 25 km<sup>4</sup>. Low and medium altitude platforms (Low and Medium Altitude Platform – LMAP) have been developed for different types of aircraft as an intermediary element between

<sup>2</sup> Vamsi Paruchuri, Arjan Durresi, Sriram Chellappan, *Secure Communications Over Hybrid Military Networks*, Military Communications Conference, San Diego, 2008.

<sup>3</sup> JCS (Joint Chief of Staff), *Joint Communications System*. Joint Publication 6-0. 2010.

<sup>4</sup> D. Grace, M. Mohorčič, *Broadband Communications via High-Altitude Platforms*, Ed. John Wiley and Sons, Ltd., United Kingdoms, 2010.



satellites and terrestrial communications systems, whose operational altitude does not exceed 4 km<sup>5</sup>. Tactical communications satellite systems are considered the backbone of military communications networks, providing forces connectivity, whether by land, at sea or in the air<sup>6</sup>.

**Tactical satellite communications (TacSatCom)**, unlike large satellites, earned their place in aerial communications architecture by low production and maintenance costs, design simplicity and ease of launch. Satellite communications represent attractive solutions for the military because of operational flexibility and ability to provide direct connections with end users on the ground without using radio relays.

Tactical satellites are perceived within the military communications network as systems capable to reduce defense vulnerabilities in the airspace, enabling communication flow in geographic areas of more than 100,000 km<sup>2</sup> and little used<sup>7</sup>. Their size is a factor which, depending on the nature of the mission, may be an advantage.

By integrating local radio networks in the strategic network, command and control of forces at any point on the globe is enabled. The use of Ka-band technology and of terminals capable of 1 Mbps continuous flow performance allow mobile command of forces<sup>8</sup> while also offering voice interconnectivity, data and mobile communications<sup>9</sup>.

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<sup>5</sup> Laurent Reynaud, Tinku Rasheed, *Deployable Aerial Communication Networks: Challenges for Futuristic Applications*, Proceedings of the 9th ACM symposium on Performance evaluation of wireless ad hoc, sensor, and ubiquitous networks, Cyprus, 2012.

<sup>6</sup> Hughes Network Systems, Defence Competencies. White Paper, 2010.

<sup>7</sup> Corey M. Collier, Jeffrey C. Kacala, *A Cost-Effectiveness Analysis Of Tactical Satellites, High-Altitude Long-Endurance Airships, And High And Medium Altitude Unmanned Aerial Systems For Isr And Communication Missions*, Thesis Naval Postgraduate School, 2008.

<sup>8</sup> \*\*\*, "Tactical Satellite Communications Networks", in *Defense Update*, no 1/2005, available at <http://defenseupdate.com/features/du-1-05/c4-satcom.htm>.

<sup>9</sup> John Edwards, "Satellites And Secure Wireless Evolve To Meet New Demands", in *Defense Systems: Information Technology and Net-Centric Warfare*, available at <http://defensesystems.com/Articles/2012/09/06/C4ISR-1->

**High Altitude Platforms (HAP)** provides mobile communications services in the stratosphere in various topologies<sup>10</sup>: independent systems (efficient and economical for low-traffic applications in remote isolated areas); systems connected to the grounded network; satellite-terrestrial network intermediary elements. The infrastructure for such systems include: balloons, blimps, unmanned aerial systems and aircraft<sup>11</sup>. From an altitude of 21 km, a PAH can provide communication services on an area of about 31,000 km<sup>2</sup> on the surface of the Earth<sup>12</sup>.

The development of high altitude platforms aimed at preserving the benefits of terrestrial and satellite communication systems (large area coverage, broadband capability, flexibility in response to traffic demands) as well as at obtaining unique features (rapid implementation, low costs, shorter transmission distances for communications relays on the ground). In terms of operational frequencies used by high altitude platforms, they have been allocated four wide-bands: 1.8 ÷ 2.1 GHz (allocated to support the different 3G radio technologies); 6.44 ÷ 6.46 GHz (two bands of 80 MHz for the output interface), 28 ÷ 31 GHz (two bands of 300 MHz connecting with and from the ground); 47 ÷ 48 GHz (a global bandwidth, also with two bands of 300 MHz)<sup>13</sup>.

Even if HAP can be considered surrogate satellites, unlike geostationary satellites, they bring an increase in limited sensitivity with impact on lower probability of interception of

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military-satcom.aspx?Page=1, accessed on 03.05.2015.

<sup>10</sup> Tarulata H. Chauhan, Sudhir Agarwal, Suchit Purohit, Amit Kumar, "Wireless Communications from High Altitude Platforms", *International Journal of Emerging Technology and Advanced Engineering*, Volume 3, Issue 4, 2013, pp. 220-223.

<sup>11</sup> Tim C. Tozer, David Grace, "High-altitude platforms for wireless communications", in *Electronics & Communication Engineering Journal*, June 2001.

<sup>12</sup> Wiliam Webb, *Wireless Communications: The Future*, John Wiley and Sons Ltd., 2007.

<sup>13</sup> Laurent Reynaud, Tinku Rasheed, "Deployable Aerial Communication Networks: Challenges For Futuristic Applications", in *Proceedings of the 9th ACM symposium on Performance evaluation of wireless ad hoc, sensor, and ubiquitous networks*, Cyprus, 2012.



communications from the ground<sup>14</sup>. Moreover, compared to LMAP, they provide greater coverage and autonomy. Thus, in the context of increasing demands for air connectivity service which are beyond the technical possibilities of satellites, HAP has become a cost-effective and efficient option.

Besides the communication performance, HAP can also be used for other types of missions: surveillance and control of airspace and sea; target reconnaissance, surveillance and acquisition; missile operations<sup>15</sup>.

The main challenges for these communications platforms are: technical (development of ultra-lightweight antennas and calibration technologies, scaling to support larger antennas) and operational (enemy's air defense systems, the weather at launch and descent)<sup>16</sup>.

**Low and medium altitude platforms (LMAP)** have broad applicability in military communications, especially because they are difficult to detect. The typology of these platforms is diverse and includes both balloons and aircraft, manned or unmanned, with or without engine.

Challenges such as autonomy, communications payload or size have been faced by developing platforms of Unmanned Aerial Vehicle (UAV) type<sup>17</sup>.

Communication systems available on these platforms (3G technology, LTE, WiMAX or WiFi) can be used independently or within combined architecture<sup>18</sup>.

The systematization of communications performance for the three alternatives (tactical satellites, high altitude platforms and low and medium altitude platforms) is guided by the

**Table no. 2:** Design of characteristics matrix and performance evaluation

Number of attacks	23
Number of deaths	126
Number of casualties	489
Deaths per attack	5.5
Casualties per attack	21.3

<sup>14</sup> Corey M. Collier, Jeffrey C. Kacala, *A Cost-Effectiveness Analysis Of Tactical Satellites, High-Altitude Long-Endurance Airships, And High And Medium Altitude Unmanned Aerial Systems For Isr And Communication Missions*, Thesis Naval Postgraduate School, 2008.

<sup>15</sup> Lewis Jamison, Isaac Porche, Geoffrey Sommer, *High-Altitude Airships for the Future Force Army*, Santa Monica, CA: Rand, 2005.

<sup>16</sup> Darpa Microsystems Technology Office, *Integrated Sensor Is Structure (ISIS)*, 2008, available at <http://www.darpa.mil/mto/programs/isis/index.html>, accessed at 12.05.2015.

following indicators: quality of communications services, data security and reliability of systems (Table no. 2).

<sup>17</sup> Vasile Prisacariu, Mircea Boşcoianu, Ionică Cîrciu, "Research Regard Upgrade Of Uav In Low Cost Concept", in *International Conference AFASES 2012, May 24-26*.

<sup>18</sup> Saeed H. Alsamhi, N.S. Rajput, "An Intelligent HAP For Broadband Wireless Communications: Developments, Qos And Applications", in *International Journal of Electronics and Electrical Engineering*, Vol. 3, No. 2/2015.

Because selected indicators evaluate multiple capacities, a number of associated performance criteria have been defined.

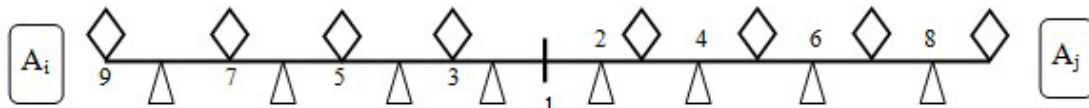
**2. Multi-criteria performance evaluation model**

Multi-criteria analysis (MCA) is a structured approach to achieve one or more objectives, providing various techniques of comparison and prioritization of various alternatives. In the case of MCA, we can simultaneously consider multiple criteria which describe a complex situation

components is achieved by building a cross matrix comparing  $C_i$  performance indicators. If performance indicators are detailed on criteria, pair comparisons repeat for each one of the levels of this hierarchy, and the degree of importance is assessed using a Saaty scale.

This scale is divided into two levels: basic (1 - as important as; 3 - more important, 5 – much more important; 7 - very important; 9 - extremely important) and intermediary (2, 4, 6, 8 – when compromise is needed) (Figure no. 1).

The selection of performance indicators was influenced by the availability of data (quantitative



**Figure no. 1: Saaty Scale**

and the alternatives represent the way in which objectives are met. Once the problem defined and structured, the next step is to determine the relative importance of criteria depending on the set conditions, for which the Hierarchical Analytical Process is used (PIA).

The Hierarchical Analytical Process is designed to cope with both rational entries and the intuitive ones specific to the decision making process to select the best solution from a number of alternatives evaluated against multiple criteria<sup>19</sup>. The hierarchy corresponding to the decision problem consists of three levels: the general objective (top level), the importance criteria (middle level) and the options or alternatives (the basic level). PIA is used to determine the importance of each indicator thus describing the degree of contribution to the overall purpose from at least two perspectives: it can effectively manage discrepancies between relative judgments and is effective when there are qualitative criteria<sup>20</sup>. The ranking of decision

and qualitative) in accordance with the objective of ensuring needed sufficiency in determining the level of fulfillment of the requirements by each of the alternatives analyzed.

The square matrix corresponding to pair comparisons is marked by A ( $n$  rows and  $n$  columns), and the main diagonal contains only items with a value of 1, corresponding to the (obvious) statement that each criterion is as important to itself. If the assigned value to the left ( $a_{i,i+p} \in \overline{1,9}$ ) is of 1, it means that  $C_i$  is greater than  $C_{i+p}$  and this value is recorded in the matrix, therefore  $C_{i+p}$  is greater than  $C_i$  and the value

$\frac{1}{a_{i,i+p}}$  is recorded in the matrix (relation 1).

$$A = \begin{matrix} & \begin{matrix} C_1 & \dots & C_n \end{matrix} \\ \begin{matrix} C_1 \\ \vdots \\ C_n \end{matrix} & \begin{vmatrix} a_1/a_1 & \dots & a_1/a_n \\ \vdots & \ddots & \vdots \\ a_n/a_1 & \dots & a_n/a_n \end{vmatrix} \end{matrix} \quad (1)$$

<sup>19</sup> Suthipun Thaneseen, Seiichi Kagaya, Kenetsu Uchida, "Application of Analytic Hierarchy Process on Preferable Speed Limit for Logistics Company: A Case Study on Hokkaido Roads", in *Canadian Journal of Transportation*, available at <http://journals.hil.unb.ca/index.php/CJT/article/view/654/4739>, accessed at 02.06.2015.

<sup>20</sup> Gissel Goldbach, Leleur Steen, "Cost-Benefit Analysis and alternative approaches from the Centre for Logistics

and Goodds. Study of Evaluation Techniques", available at [http://www.systemicplanning.dk/Cost-Benefit%20Analysis%20\\_CBA\\_%20and%20alternative%20approaches%20from%20the%20Centre%20for%20Logistics%20and%20Goodds%20\\_CLG\\_%20study%20of%20evaluation%20techniques,%202004.pdf](http://www.systemicplanning.dk/Cost-Benefit%20Analysis%20_CBA_%20and%20alternative%20approaches%20from%20the%20Centre%20for%20Logistics%20and%20Goodds%20_CLG_%20study%20of%20evaluation%20techniques,%202004.pdf), accessed at 04.06.2015.

The algorithm for determining the weights of performance indicators and of importance criteria includes<sup>21</sup>:

- determining the geometric mean of the values in each row of the matrix;
- summing geometric means along a column;
- normalization of each geometric mean obtained by dividing the total.

At the next stage, the alternate score (SA) of each  $m$  variant is determined using the cumulative linear model (Eq. 2), where  $c_{nm}$  represents the scale level of the performance of alternative  $m$  for criterion  $n$ .

$$SA_m = c_{1m} \cdot w_1 + c_{2m} \cdot w_2 + \dots + c_{nm} \cdot w_n \quad (2)$$

To achieve uniform criteria (which can be described both qualitatively and quantitatively), a five-level performance scale is built (Table no. 3).

**Table no. 3:** Performance scale of communications platform alternatives

Level of performance	Scaling
Not applicable	0.0
Limited	0.25
Accepted	0.5
Significant	0.75
Remarkable	1

The option which best meets the objective of the analysis is the one corresponding to highest alternative score.

### 3. Case Study: specific scenario for hybrid war

The hybrid war combines the lethality of classic wars with the intensity of asymmetrical

<sup>21</sup> Monica Roman, *Analiza Multi-criterială. Manual*, Proiectul Dezvoltarea capacității pentru Analiza Cost-Beneficiu, 2012.

conflicts<sup>22</sup> through concerted actions on wide areas and executed with specific means (political, economic, social, informational and military) in order to obtain strategic advantages<sup>23</sup>.

In such operations, informational effort is maximum: *the mission is the message*.

Improving strategic communication capabilities has led to the replacement of the concept of strategic communications with synchronized communications<sup>24</sup>.

Achieving data center connectivity (for reasons of efficiency and effectiveness) has transformed these network facilities in potential targets for hybrid war actors (ex. the electronic attack against communications satellites).

The operational environment associated with hybrid conflicts is characterized by multiple capabilities of the adversary (technological, informational, action); wide area of confrontation (geographic, economic, political, social, cultural, religious, etc.); it integrates information operations; the opponent is difficult to detect and identify; low-intensity operations alternate with those of high intensity and short duration. By configuring the characteristics of the operational environment of hybrid conflicts, the square matrix of performance indicators / criteria is built (Table no. 4). Once the degree of importance of criteria is determined, the same algorithm is used for determining the degree of importance of performance indicators.

For the determination of the alternative score, it is necessary to evaluate the performance using the value scale (Table no. 3) and to integrate it within the degree of importance calculated at the previous stage (Table no. 5).

The results indicate that, to ensure communication requirements in the operations area associated with hybrid conflicts, the most

<sup>22</sup> Frank G. Hoffman, *Conflict in the 21st Century: The Rise of Hybrid Wars*, Potomac Institute for Policy Studies, Arlington – Virginia., 2007, pp. 27-29.

<sup>23</sup> Valerică Cruceru, “On Hybrid War Concept As Presented in The American Military Thinking”, in *Buletinul Universității Naționale de Apărare “Carol I”*, no. 3/2014, pp. 29-33.

<sup>24</sup> Official Joint Doctrine Note website, available at [http://www.dtic.mil/doctrine/notes/jdn2\\_13.pdf](http://www.dtic.mil/doctrine/notes/jdn2_13.pdf), accessed at 03.06.2015.





appropriate solution are the high-altitude aerial platforms. They are able to act over the interest area without air superiority. In case of air superiority, access requirements in the interest

area are met by all platforms.

They can also perform at different altitudes, so that they are difficult to combat by ground-to-air missiles. HAP has increased capability to

**Table no. 4:** Matrix of the degree of importance of criteria

Indicators / Criteria		$C_i$											$w_i$		
		$C_1$	$C_2$	$C_3$	$C_4$	$C_5$	$C_6$	$C_7$	$C_8$	$C_9$	$C_{10}$	$C_{11}$			
<i>Quality of services</i>	Communications performance ( $C_1$ )	1	$\frac{1}{3}$	5	$\frac{1}{5}$	3									0.13
	Access to the operations area ( $C_2$ )	3	1	7	$\frac{1}{3}$	5									0.26
	Distance to target ( $C_3$ )	$\frac{1}{5}$	$\frac{1}{7}$	1	$\frac{1}{9}$	$\frac{1}{3}$									0.03
	Autonomy in the operations area ( $C_4$ )	5	3	9	1	7									0.51
	Versatility ( $C_5$ )	$\frac{1}{3}$	$\frac{1}{5}$	3	$\frac{1}{7}$	1									0.06
<i>Data security</i>	Vulnerability ( $C_6$ )						1	3	5						0.63
	Probability of failure ( $C_7$ )						$\frac{1}{3}$	1	4						0.28
	Probability of jamming ( $C_8$ )						$\frac{1}{5}$	$\frac{1}{4}$	1						0.09
<i>System reliability</i>	Dependability ( $C_9$ )									1	$\frac{1}{2}$	4			0.33
	Implementation ( $C_{10}$ )									2	1	5			0.57
	Lifespan ( $C_{11}$ )									$\frac{1}{4}$	$\frac{1}{5}$	1			0.1

**Table no. 5:** Evaluation and integration of performance indicators and criteria for air communications platforms

Indicators / performance criteria	$w_i$	Alternatives		
		LMAP	HAP	TacSat
<i>Quality of services</i>	<b>0.74</b>			
<b>Communications performance</b>	0.13	0.5	0.75	0.75
<b>Access to the operations area</b>	0.26	0.25	0.5	1
<b>Distance to target</b>	0.03	0.25	0.5	1
<b>Autonomy in the operations area</b>	0.51	0.5	1	0.5
<b>Versatility</b>	0.06	0.75	1	0.25
<i>Data security</i>	<b>0.19</b>			
<b>Vulnerability</b>	0.63	0.5	0.75	0.75
<b>Probability of failure</b>	0.28	0.25	0.75	1
<b>Probability of jamming</b>	0.09	0.25	0.75	1
<i>System reliability</i>	<b>0.07</b>			
<b>Dependability</b>	0.33	0.5	0.75	1
<b>Implementation</b>	0.57	0.75	1	0.25
<b>Lifespan</b>	0.1	1	0.5	1
<b>ALTERNATIVE SCORE</b>		0.45	0.81	0.69



change the payload (versatility) according to the new requirements of the mission, even if it may require landing for reconfiguration.

By evaluating the response capability of air platforms to communications requirements (continuous, secure and remote) associated with different action scenarios, the knowledge needed in strategic decision-making architecture is configured.

### Conclusions

Continuous maintenance of mobile communications (vertically and horizontally), on distances as long as possible, is the main requirement for operational and decisional military structures in terms of air communications platforms. The results offered by AMC-PIA model indicate the best solution regarding the utility of air communications platforms in various situations/scenarios.

There is not any other communication technology to respond to all challenges specific to the military environment (the typology of operations – war, crisis, peace enforcement and peace keeping, emergency situation; the level of development of a state: developed states, emergent states, developing states, poor states; the weather: rain, lightning, extreme temperatures), but there is a reciprocal cooperation in approach within a multi-level network (through integrating ground and air capabilities) according to the action area.

The beneficiaries of such a study are, first of all, the three Force Staffs (the Air Force Staff, the Land Force Staff and the Navy Staff), but there are other possible beneficiaries: the intelligence service, the special transmission service, the higher military education institutions.

For developing the comparative analysis, the following simplifying hypothesis has been issued: individual evaluation of air communications platforms. The design and evaluation of possible integrated communications architectures as well as a cost analysis are the objectives of further research.

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# RECENT EVOLUTIONS OF THE CHINESE NAVAL POWER

*Florin DIACONU, PhD\**

*China is, quite clearly, attempting to gain fully operational world power status. Such a major goal of the Chinese grand strategy obviously requires a massive and quick development of the naval power, one of the instruments potentially enabling a traditionally great continental power to become more and more globally capable, in broad geo-strategic terms. Along the past few years, the pace of the development of the Chinese Navy was really impressive, and important professional opinions in the Western world (mainly in the U.S.) are clearly showing how significant is the impact of the more and more ambitious and increasingly 'blue-water' capable Chinese Navy in the Pacific and on the global arena. In order to better understand the meaning of the quick and massive evolution of the Chinese naval forces, the author of this article compares this trend with the evolution of Germany's naval forces at the end of the 19<sup>th</sup> century and in the opening stages of the 20<sup>th</sup> century.*

**Keywords:** *continental power; great power; world power; China; Germany; Navy; grand strategy.*

## **Introduction**

Practically along the entire world history, there is an obvious and significant positive

correlation between a country's power status and its general military capabilities, ambitions, plans and actions. If we are speaking about political actors directly aiming *world power*<sup>1</sup> status (which means global interests, and global responsibilities, and also the clear need for deliberately developing and using strategic 'tools' with truly global reach), *naval power is a must*. The most obvious reason explaining this is the basic fact, clearly and intensely significant for both geopolitics and geography that the total area of the Earth is covered 71 % by vast oceans and only 29 % by continental masses and smaller islands and archipelagos<sup>2</sup>.

### **1. A historical perspective analysis of the correlation naval power – great power status**

A good example showing how important are the differences separating great continental power status and global power status is offered, at the end of the 19<sup>th</sup> century and in the opening stages of the 20<sup>th</sup> century, by the history of Germany.

<sup>1</sup> For world powers, their features and their history see for example, Martin Wight, *Politica de putere*, Chişinău, Arc Publishinghouse, 1998, pp. 62-68 (and mainly 64).

<sup>2</sup> Gérard Chaliand; Jean-Pierre Rageau, *A Strategic Atlas. Comparative Geopolitics of the World's Powers*, New York, Harper & Row Publishers, 1985, p. 51.

*\* Florin DIACONU is PhD Professor at the Faculty of Political Science within University of Bucharest (FSPUB), Director of the Hans J. Morgenthau Center ([www.morgenthaucenter.org](http://www.morgenthaucenter.org)) and of CIESPRISS (a research centre within the FSPUB), in Bucharest, Romania. E-mail address: [florin.diaconu@fspub.unibuc.ro](mailto:florin.diaconu@fspub.unibuc.ro)*



After decisively defeating, along less than a decade, two major European powers (both the Austrian Empire, in 1866, and the Second French Empire, in 1870), Germany became a *de facto* hegemonic power in the Western part of Eurasia. *But, without a major Navy able to properly support global ambitions (clearly going far beyond the limits of the continent which was so clearly dominated by Berlin), Germany had no chance to gain and maintain global power status.*

In such a context, political decision-makers in Berlin, accompanied by their military advisors and commanders, designed and implemented the ambitious – and clearly very cost-intensive – plan of transforming Germany into a *major* player on the World Ocean (which had been dominated, since 1805, by the British naval forces). This quickly led to a sharp increase of the total number and combat effectiveness of the German Navy.

In 1882, roughly just one decade after the end of the successful process of national unification, Germany had a medium-sized Navy: 12 large heavily armoured ships, an armoured monitor fit for defending its long coastline on the shores of the Baltic Sea, 11 smaller armoured vessels, 18 cruisers and frigates of different types, 17 gunboats, 11 torpedo boats and 14 auxiliary ships. All of these, put together, had a total displacement of roughly 172,000 tons (while the British naval forces or Royal Navy had a total displacement of 676,000 tons and the French one – 522,000 tons).

About 25 years later, in 1908, Germany has 24 battleships, 8 large armoured monitors fit for coastal defence, 8 strong armoured cruisers, 30 lighter cruisers, 15 gunboats, 128 torpedo boats of all sorts, 2 submarines and 20 auxiliary ships, all of these with a total displacement of 610,000 tons. At that moment, the total displacement of the British Navy was 1,930,000 tons, and that of the French Navy was 650,000 tons<sup>3</sup>. Along the next 6 years, Germany prepared herself even more intensely than before for a major confrontation on the open seas.

In 1914, when the First World War started,

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<sup>3</sup> Helmut Pemsel, *Von Salamis bis Okinawa. Eine Chronik zur Seekriegsgeschichte*, Munchen, J. F. Lehmanns Verlag, 1975, pp. 316-317.

Berlin was, without any doubt, *the second* naval power of the world. The German Navy had at that moment no less than 15 new dreadnoughts, 22 older battleships, 5 new battle cruisers, 11 heavy and armoured cruisers, 33 lighter (unarmoured) cruisers, 90 destroyers and large torpedo boats<sup>4</sup> and “fewer than 50 U-boats”<sup>5</sup>.

*The combat effectiveness of the German Navy was astonishingly high.* One example might be enough, we think, in order to prove this. The Jutland or Skaggeiak battle, the largest naval confrontation of the First World War, was fought by a British fleet with a total displacement of 1,250,000 tons, while the German Hochseeflotte had a total displacement two times smaller – 660,000 tons. In spite of being severely outnumbered and outgunned, the Germans managed to destroy 14 British ships with a total displacement of 115,000 tons, while their own losses were clearly lighter – only 11 ships with a total displacement of 61,000 tons<sup>6</sup>.

This means that, in the end, every ton of German combat ship was, along this episode, almost 4 times more effective than the average ton of British combat ship. We are not at all to forget that, according to Paul Kennedy, Germany used naval power as an instrument to completely “alter” the *global* geo-strategic “status quo”; practically, we are speaking about a “rapid buildup of the German navy after 1898, which under Tirpitz was transformed from being the sixth-largest fleet in the world to being second only to the Royal Navy”<sup>7</sup>.

## 2. Main elements of the Chinese naval evolutions in the period 2003-2015

In 2003, the Chinese Navy had 69 submarines (1 strategic, 67 tactical, and another one, a Golf-class, in full SLBM trials), 21 destroyers,

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<sup>4</sup> Helmut Pemsel, *op. cit.*, p. 198.

<sup>5</sup> E. B. Potter, *Sea Power: A Naval History*, second edition, Annapolis, Maryland, Naval Institute Press, 1981, pp. 199.

<sup>6</sup> Helmut Pemsel, *op. cit.*, p. 212.

<sup>7</sup> Paul Kennedy, *The Rise and Fall of the Great Powers: Economic change and military conflict from 1500 to 2000*, New York, Vintage Books, 1989, pp. 211-212.



“about 42” frigates, approximately 368 missile, torpedo and patrol craft of different types, 1 minelayer, 37 ships specially designed for mine countermeasures, 56 amphibious ships, and 163 support and auxiliary ships. Beijing’s naval forces had at that moment their own naval aviation (with some 700 shore-based combat aircraft and 45 armed helicopters), a merchant fleet with 1,957 ocean-going ships over 1,000 tons, and almost 10,000 marines (two brigades, with two tank battalions, two artillery battalions, one air defence battalion and two amphibious reconnaissance battalions), and at least 3 Army divisions also had “amphibious role”. At that moment, the total amount of manpower of the Chinese Navy was, according to the source consulted, approximately 250,000 military personnel, including Coastal Regional Defence Forces, 26,000 men belonging to the Naval Aviation, the 10,000 Marines and some 40,000 conscripts<sup>8</sup>. All these sailors, pilots and soldiers represented almost 9 % of the total military forces of the People’s Republic of China<sup>9</sup>.

Ten years later, in 2013-2014, the Chinese Navy already had *significantly larger and more modern capabilities*: 4 strategic submarines with nuclear propulsion, armed with SLBMs, 66 other submarines (including five with nuclear propulsion), 70 main surface combat ships (including an airplane carrier, 15 modern destroyers, 54 frigates), more than 216 patrol and coastal combat ships (including 8 corvettes), 53 mine warfare vessels, 3 large amphibious ships, 85 other landing ships, 152 landing craft, 212 logistics and support ships. Naval aviation has 332 combat capable aircraft plus more than 100 combat and transport helicopters. *Global capabilities of naval forces of China are seriously enhanced by 17 navigation and positioning satellites*<sup>10</sup>.

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<sup>8</sup> Colonel Christopher Langton (editor), *The Military Balance 2003-2004*, London, Oxford University Press / The International Institute for Strategic Studies (IISS), October 2003, pp. 153-154.

<sup>9</sup> For the total manpower of the military forces of the PRC see *Ibidem*, p. 152.

<sup>10</sup> *Military Balance 2014*, London, Routledge/IISS, 2014, pp. 231, 233-235.

Speaking about increasingly effective naval assets, we are to take into account that in 2013, the Chinese Navy “has taken delivery of the first of a new kind of stealth frigate, as tension continues with neighbouring countries over maritime borders”, *BBC* reports. According to the same source, “Chinese President Hu Jintao said last year [2012] that the country needed to transform itself into a “maritime power””, and that the new “Type 056 stealth frigate has a sleek design that helps it evade radar detection, and needs just one-third of the crew used by its predecessor”. We also know that the first ship belonging to the new class “was delivered to the Chinese navy in Shanghai, state-run news agency Xinhua said”, and “China said the new vessel is part of a systematic upgrading of naval hardware”. According to official Chinese sources, “the frigate - one of 20 being built - will mainly be deployed on escort missions and for anti-submarine operations”, and the *Xinhua* press agency said the new ship “would enhance the country’s ability to safeguard national security and defend maritime sovereignty”. *BBC* also strongly underlined on that occasion that “the arrival of the new vessel comes at a time when China is in dispute with a number of neighbouring countries over national boundaries in the East and South China Seas”, that “Beijing is in the middle of a programme to improve its navy”, launching its first aircraft carrier, Liaoning, in 2011 and also that recently “Beijing has been arguing with Tokyo over the Senkaku Islands - known as the Diaoyu Islands in Chinese - which are controlled by Japan but also claimed by China”<sup>11</sup>.

At the end of May, 2015, reliable open sources in the Western world reported that a newly published Chinese “strategy document” clearly stated that the Navy “will shift its focus to “open seas protection”, rather than “offshore waters defence” alone”. To this add that “in recent years, China has focused on building up its navy. It has launched an aircraft carrier and invested heavily in submarines and other warships”, and that China’s “recent naval policy has prompted the most controversy”. A Chinese

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<sup>11</sup> “China Navy Launches New Stealth Frigate”, *BBC*, February 26, 2013, available at <http://www.bbc.com/news/world-asia-china-21590331>.



official document quoted by *BBC* also “warns of threats to China’s maritime rights and interests”. With more details, “it says China “will not attack unless [it is] attacked, but will counterattack”” and mentions the “provocative actions of certain offshore neighbours” and “outside parties involving themselves in South China Sea affairs”. *BBC* also underlines that fact that, “on the same day that the strategy document was released, state news agency Xinhua reported two 50-metre high lighthouses were to be built on a reefs in the Spratly Islands, which are [also] claimed by Vietnam and the Philippines”<sup>12</sup>.

Also in May, 2015, Chinese combat ships sailed to the Mediterranean Sea, where they took part in a large scale military exercise, together with ships belonging to the Russian Navy. Open sources report that “China, unlike Russia (and the former Soviet Union), has traditionally not seen the Mediterranean as an area of strategic concern. But over recent years, its importance to Beijing has increased markedly”. The source we are quoting here from says “China’s growing economic role in the region and the importance of securing shipping lanes for its trade have given the Chinese a new focus”, and also emphasizes the fact that “twice in recent years, China has had to use its navy to evacuate citizens caught up in the region’s upheavals”. The author of the text quoted also reports that “earlier this year, Chinese ships helped pick up several hundred Chinese workers from Yemen, and a similar operation was mounted in Libya in 2011 for thousands of Chinese nationals”. According to the source we are using here, “two Chinese 054A/*Jiangkai II* class missile frigates - the *Linyi* and the *Weifang* - along with a supply vessel, the *Weishanhu*” have been involved in the military exercise in the Mediterranean, and we also know that the joint Russian-Chinese naval action “encompass safety drills, replenishment at sea, escort missions and” even “some live firing”<sup>13</sup>.

In late spring of 2015, two other episodes make more complete the broad picture of the Chinese Navy playing and *increasingly global* role. In May, “Djibouti [on the Eastern shores of Africa] announced that China was seeking to establish a small base there alongside facilities operated by the US, France and even Japan”, and some Chinese warships visited, for the first time in the history of the Chinese Navy, “the Russian Black Sea base of Novorossiysk”<sup>14</sup>.

*Of course, when we are speaking about increasing Chinese global military (or strategic) capabilities, naval developments are not at all the only important topic.* At the end of 2014, open sources reported – extensively quoting “the 2014 annual congressional report from the US China Economic and Security Review Commission” – that the *strategic* missile forces (able to easily reach targets several thousand miles away) of Beijing are sharply increasing. At that moment, China had “50 to 75 nuclear capable intercontinental ballistic missiles (ICBMs) that could reach the US. Within the next 15 years, China will likely have an arsenal of over 100 ICBMs” (a figure 33 to 100 % higher than the current one). The same open source is stating that “China has now become a “preeminent space” power”, and “due to China’s development of counterspace capabilities, the country will “likely be able to hold at risk U.S. national security satellites in every orbital regime in the next five to ten years””. Most probably, “Beijing could soon have the capacity to destroy any US satellite it wishes”, and the source we are quoting here from is stating that “this ability to target US satellites would pose a significant threat to the US military, as it would cripple the use of GPS and satellite communication”<sup>15</sup>, badly harming – or at least severely threatening and limiting – some U.S. global strategic capabilities, which are really vital for preserving a stable global distribution of power in favour of the Western world (a part of

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<sup>12</sup> “Chinese Navy to Focus on ‘Open Seas’, Paper Says”, *BBC*, May 26, 2015, available at <http://www.bbc.com/news/world-asia-china-32880477>.

<sup>13</sup> Jonathan Marcus, diplomatic correspondent, “China-Russia Drills in Med Show Shifting Strategies”, *BBC*, May 11, 2015, available at [\[asia-china-32686956\]\(http://www.bbc.com/news/world-asia-china-32686956\).](http://www.bbc.com/news/world-</a></p></div><div data-bbox=)

<sup>14</sup> *Ibidem*.

<sup>15</sup> Jeremy Bender, “China’s Nuclear Weapons are Getting Bigger and More Destructive”, in *Business Insider*, November 20, 2014, available at <http://www.businessinsider.com/chinas-nuclear-capabilities-increasing-2014-11>.



the international system Romania belongs to).

A very recent U.S. official document (published in April 2015) is reporting, with all necessary details, that Chinese military staged several “global operations in 2014”. These *global* operations “included counter-piracy patrols, humanitarian assistance and disaster relief, exercises and sea lane security. Highlights include the deployments of the 17th and 18th Naval Escort Task Forces to the Gulf of Aden, PLA Navy frigates escorting cargo ships carrying chemical weapons materials out of Syria, search and rescue support for Malaysia Airlines MH370, participation in UN peacekeeping missions, circumnavigation of the African continent, and the first-ever deployment of a SHANG-class nuclear powered submarine (SSN) and SONG-class diesel electric submarine (SS) to the Indian Ocean”<sup>16</sup>. Most of the missions and actions listed along the lines above are clearly significant and very recent elements in the development of the Chinese Navy, already able to operate, in case of need, far away from national shores. And *developing plus testing increased blue-water capabilities and the ability to operate in very distant regions of the World Ocean is, as far as we can understand, a very clear sign of seriously boosted technological skills and political-strategic ambitions*.

Another very recent U.S. official document is clearly stating that, according to top U.S. strategic planners, China is one of the states “attempting to revise key aspects of the international order and are acting in a manner that threatens our [U.S.] national security interests”. The same document is reporting that at this very moment “China’s actions are adding tension to the Asia-Pacific region. For example, its claims to nearly the entire South China Sea are inconsistent with international law. The international community continues to call on China to settle such issues cooperatively

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<sup>16</sup> “Executive Summary”, in Office of the Secretary of Defence, *Annual Report to the Congress: Military and Security Developments Involving the People’s Republic of China 2015. A Report to Congress Pursuant to the National Defense Authorization Act for Fiscal Year 2000*, available at [www.defense.gov/pubs/2015\\_China\\_Military\\_Power\\_Report.pdf](http://www.defense.gov/pubs/2015_China_Military_Power_Report.pdf).

and without coercion. China has responded with aggressive land reclamation efforts that will allow it to position military forces astride vital international sea lanes”<sup>17</sup>. In such a situation, the same document is stating, “therefore we will press forward with the rebalance to the Asia-Pacific region, placing our most advanced capabilities and greater capacity in that vital theatre. We will strengthen our alliances with Australia, Japan, the Republic of Korea, the Philippines, and Thailand. We also will deepen our security relationship with India and build upon our partnerships with New Zealand, Singapore, Indonesia, Malaysia, Vietnam, and Bangladesh”<sup>18</sup>. *Such a behaviour strongly indicates that the U.S. is trying to deter – and, up to a certain point, to contain – a clearly more ambitious than ever before China, a country which deliberately uses its Navy in order to quickly and massively expand its sphere of influence across the entire Pacific*.

*For the foreseeable future, Chinese naval plans – with obvious and major geo-strategic meanings and consequences – are even more ambitious*. A reliable open source recently stated that “China has plans to grow its navy to 351 ships by 2020 as the Chinese continue to develop their military’s ability to strike global targets, according to a new report”. In such a situation, the same open source is stating, “the 2014 US-China Economic and Security Review Commission recommended to Congress the US Navy respond by building more ships and increase its presence in the Pacific region – a strategy they US military has already started”. Practically, “the commission asked Congress to increase its Pacific fleet up to 67 ships and rebalance homeports such that 60-percent of the force is based in the region by 2020”. And the source we are quoting here from is also stating that “the commission’s recommendations, which are based on Congressional testimony, expert assessments and open-source information on China’s military and US-Chinese relations,

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<sup>17</sup> Joint Chiefs of Staff (JCS), *The National Military Strategy of the United States of America 2015: The United States Military’s Contribution To National Security*, June 2015, available at [www.jcs.mil/Portals/36/Documents/Publications/National\\_Military\\_Strategy\\_2015.pdf](http://www.jcs.mil/Portals/36/Documents/Publications/National_Military_Strategy_2015.pdf), p. 2.

<sup>18</sup> *Ibidem*, p. 9.





are consistent with Pentagon's stated plans for the region"<sup>19</sup>.

In early summer of 2015, ONI (the U.S. Office of Naval Intelligence) has published a detailed report dealing with the accelerated pace of the evolution of the Chinese Navy. The document is starting by quoting former Chinese President Hu Jintao, who said, a few years ago: "we should enhance our capacity for exploiting marine resources... resolutely safeguard China's maritime rights and interests, and building China into a maritime power". The same U.S. official document is clearly stating that "since our last publication in 2009, the People's Liberation Army Navy (PLA(N)) has made significant strides in operationalising as well as modernizing its force. Although the PLA(N)'s primary focus remains in the East Asia region, where China faces multiple disputes over the sovereignty of various maritime features and associated maritime rights, in recent years, the PLA(N) has increased its focus on developing blue-water naval capabilities. Over the long term, Beijing aspires to sustain naval missions far from China's shores"<sup>20</sup>. It is also stating that "China's leaders have embraced the idea that maritime power is essential to achieving great power status. Since the 1980s, China's naval strategy has evolved from a limited, coastal orientation, to one that is mission-focused and becoming increasingly unconstrained by geography"<sup>21</sup>. The same document is clearly stating that "China also developed the world's first antiship ballistic missile (ASBM), a system specifically designed to attack enemy aircraft carriers"<sup>22</sup> (let us not forget that in the Pacific the only China and the U.S. are operating carriers), and that "in the next decade, China

will complete its transition from a coastal navy to a navy capable of multiple missions around the world. China's leaders see the evolution of naval strategy as necessary to preserve China's interests and commensurate with its role as an emerging major power"<sup>23</sup>.

### Conclusions

All these elements, put together, are depicting in quite a detailed way *the accelerated pace of the development of the Chinese naval power; a major strategic tool of China's increased ambitions and capabilities on the global arena*. Forced to massively rely on vital imports (mainly from Middle East and Africa), quite naturally obsessed by the desire to protect really vital sea trade routes, most probably deeply interested to be able to protect the very large Chinese minorities in several countries in South-Eastern and Southern Asia<sup>24</sup>, *China is pouring more and more resources in developing a potent and increasingly blue-water Navy. Such an evolution is a constitutive part of the scenario naturally leading China to global power status, and it is also significantly increasing strategic competition at least in the (Western) Pacific*. In a way or another, the ongoing development of the Chinese naval power is strongly reminding us some of the essential steps Germany had done, more than a century ago, in order to gain world power status. For both countries – Germany one hundred years ago and China at this very moment – the correlation of increased naval power and increasingly ambitious geostrategic plans is obvious and significant.

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<sup>19</sup> Kris Osborn (Military.com), "The Chinese Navy Will Be Bigger Than America's by 2020", in *Business Insider*, December 13, 2014, available at <http://www.businessinsider.com/the-chinese-navy-will-be-bigger-than-americas-by-2020-2014-12>.

<sup>20</sup> U. S. Office of Naval Intelligence (ONI), *The PLA Navy: New Capabilities and Missions for the 21<sup>st</sup> Century*, 2015, available at [www.oni.navy.mil/Intelligence\\_Community/china\\_media/2015\\_PLA\\_NAVY\\_PUB\\_Interactive.pdf](http://www.oni.navy.mil/Intelligence_Community/china_media/2015_PLA_NAVY_PUB_Interactive.pdf), p. 4.

<sup>21</sup> *Ibidem*, p. 5.

<sup>22</sup> *Ibidem*, p. 7.

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<sup>23</sup> *Ibidem*, p. 9.

<sup>24</sup> Chinese communities in some other Asian countries are, in many occasions, really large: more than 7.5 million in Indonesia; 7.1 million in Thailand; 7 million in Malaysia; 3.5 million in Singapore (here "the Chinese are in the majority"); 1.7 million in Myanmar; 1.2 million in Vietnam; 1.15 million in the Philippines – for all these data see Martin Jacques, *When China rules the world*, second edition, London, New York, Penguin Books, 2012, p. 638.



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# THE NATIONAL INTELLIGENCE COMMUNITY IN MODERN INFORMATIONAL CONFRONTATION

*Petrișor BĂDICĂ\**

*In-depth knowledge of the risks and threats specific to the 21<sup>st</sup> Century will contribute to gaining a better understanding and awareness concerning the role of the modern intelligence in the process of generating new preventing and combating strategies, by using security resources, as well as security cooperation operations. Based on this effort, there can be identified a strong and developed international cooperation created within the System 2.0 – which relies on the network action and is supported by the new informational technologies; this system also represents the need of the necessary framework for the new types of international solidarity when managing the crisis and extending the democratic processes.*

*The approach of the new geo-political reality at national or international level, developed through cooperation processes, creates the proper environment for intelligent knowledge, but also for deepening the classic, old and new threats (which are hybrid, asymmetric, complex and transnational—supported by the informational technologies), where the integration and the usage of the synergy principle within the intelligence community implies a new level of efficiency in strengthening the preventing and combating methods, stressing the relevance of strategic knowledge and the importance of the decision based on intelligence.*

**Keywords:** *informational confrontation,*

*intelligence community (IC), strategic knowledge, 2.0 geo-politics, intelligent organization, decision-making base.*

## Introduction

Gaining a better insight in a visionary manner (as basis of defying the *Modern Intelligence Organization*) on the evolution streams of the conflictual environment specific to the XXI<sup>st</sup> Century also involves the usage of large-scale technology tools and global communications within the process of identifying current and future informational confrontation. This process also involves a dual understanding of the concepts of national security and human security – all these based on a matter of multilateralism (concerning “..arrangements involving the states<sup>1</sup>” or “an insitutional process that coordinates the relationships between 3 or several states based on general rules<sup>2</sup>”) and multipolarity<sup>3</sup>, as perspective

<sup>1</sup> R.O. Keohane, “Multilateralism: An Agenda for Research”, in *International Journal*, 45 (XLV), 1990, p.732.

<sup>2</sup> J.G. Ruggie, *Multilateralism Matters: The Theory and Praxis of an Institutional Form*, New York, Columbia University Press, 1993, p.11.

<sup>3</sup> According to Bogdan Prisecaru, “Smart Intelligence in an Interpolar Age of Incertitude”, in *International Journal of Intelligence and Counterintelligence*, 27, 2014, p.336, the visibility of the current world is “... of network and multi-polar world. The states remain the main promotors of the international relationships and the their multi-polarity is

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*\* Petrișor BĂDICĂ is PhD candidate in “Intelligence and National Security” with “Mihai Viteazul” National Intelligence Academy in Bucharest, Romania. E-mail: petrisor\_35@yahoo.com*



of developing the future society. Understanding and corroborating all these concepts, in a global frame with a dynamic geopolitics 2.0 can ensure the states' synchronization in developing and consolidating the intelligence institutions, as well as people's active involvement in building the modern intelligent state.

Developing the concepts of "*hard power*" and "*soft power*" within the international system can also contribute to develop a "3D" security model (defense, diplomacy and development) which also involves the usage of the economic and diplomatic tools (the usage of military forces on key moments) and which may highlight other 2 new concepts: "intelligent power" (*Smart Power*) and "durable security"<sup>4</sup>.

Given this context, strategic knowledge and national strategic decisions, based on intelligence, gain new valences and imply new exigencies from the institutions responsible for national security. Ensuring new conceptual diversity in the security fields also reflects in the new sector strategies, context in which the organizations have to identify new landmarks of modern intelligence (*flexible, performing, integrated, corroborated and innovative*).

The organization in a network type of the intelligence institution as well as the flexibility standardized of the strategies (*legality, functionality, the management of national security activities, common policies and integrated planification* etc.), reflects on the operational competitiveness and efficiency of the operational entities that have to value the "*-INT-s*" when

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given by the redistribution at global level, with rules and well organized actors, as well as their implications amongst which we mention: the diversification of organizations, their network organization as well as the increase of public transnational relationships; defining the important roles of the stateless actors and their possible interpretation as '... from a world of the states to a world of regions'; the development of the relationships between the government and the political side of the society.

<sup>4</sup> The concept of "durable society", developed in the US, involved a multi-disciplinary approach as well as the overcome of the traditional frame of the "national security" concept through 3 fundamental coordinates: national security – that means the ability to protect the US; human security – focused on the people's protection; collective security – focused on global interests.

conducting the current activities and when implementing the new technologies.

The hypothesis of our efforts is that the intelligence institution identifies and defines itself as an integrated and corroborative intelligence construction, a collective, intelligence actor of the current and future society, based on systemic fundamentals of which principles are related to innovation – to develop new knowledge, understanding – to assimilate new knowledge and to develop an interactive partnership.

As such, the main stake of the national decision-makers within the new conflictual area is represented by the definition of an intelligence project based on the principles of integration, corroboration and innovation, all these in the context of deepening the concepts of modern security and integrated approach of the current insecurity resources. The existence and functionality of a community of modern intelligence represents a mandatory condition for obtaining precise and integrated intelligence, as well as taking the best strategic decision of national interest.

### **1. The informational confrontation – sophisticated risks and threats**

Understanding and deepening the future role of the National Intelligence Community (NIC) in the new context of modern conflict—which is dominated by the informational confrontation, implies the clarification of some landmarks that are inter-connected, but also a new intelligence vision – which is based on the synergy of all the organizational components, at large scale, but also valuing the technological processes at all levels of knowledge all these bases on respecting the rights and the fundamental freedom of people.

***1.1. Two conceptual approaches ensure the consistency of the research effort and explain the implications of the informational confrontation within the modern operational environment:***

a) *Sophisticated risks and threats* – represent a mix of risks and threats with various implications, from various environments,



purposes and consequences. They embody the transition pattern from the risks of 1.0 generation (classic, symmetric) to the 2.0 generation – represented by the conflict resources based on the network action and valuing the new modern technologies – whose characteristics rely on the connection between them, their dynamics. The consistency of this concept is reflected in the process of specific security threats and they are approached in the context of stimulating them and the degree of danger determined by large scale usage of new informational technologies. As such, the degree of risks' sophistication is connected to modern technologies used in fields of interest as well as unlimited access to value them.

b) *The informational confrontation* – is a form of conflict specific to the current and ongoing society most likely because of its actions conducted on influencing the decision-makers; but also because, nowadays, the information is used as power resource, representing in essence “the war of the future”.

A modern challenge can also be represented by the research conducted on the symmetry/association between the informational confrontation with the concept of “4<sup>th</sup> generation war” – a confrontation that uses informational systems, internet and cyber environment. According to prof. Constantin Onișor<sup>5</sup>, a simpler approach represents “the most elevated manner that has to replace the concept of intelligence activity, ensuring the mix of classic/asymmetric/hybrid aggressions with the cultural, psychological, informational or other type of aggressions, where operational decisions are based on intelligence and the strategic objectives imply a new system of values.

Being most present in the economic-political area of the society, (starting from the competition of managing strategic resources – from water supply to terrorism), having a big diversity from state and stateless entities, where they main actors use a string of operational means,

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<sup>5</sup> Constantin Onișor, Mihail Bălan, Cristian Prună, *Intelligence and modern strategic management* (translated from Romanian), Academy of Romanian Scientists Publishing House, Bucharest, 2015, pp. 55-57.

the informational confrontation is framed in the concealed violence, including also the classic aggressions with those economic, cultural, psychological, religious or others, where the strategic decisions are based on intelligence and targeting the strategic values – to also include a new type values system. The asymmetry and the depth of this type of confrontation is taken to the extreme limits, and following the cost-advantages analysis they led to the idea that depending on the context and objectives, the space and the traditional dimensions of the confrontation are impossible to be acknowledged and managed.

From a personal point of view, the informational confrontation will be tagged by the future society where the intelligence technologies and intelligence will dominate – as power resources, where its characteristics are tied to time, space, forces, means and procedures, management, collaboration *feedback and valuing the “lessons learnt”*.

### ***1.2. The informational confrontation – new challenges for the intelligence field***

The level of knowledge of development in intelligence technology will exceed the level of individual analysis and it will be validated at the level of the intelligence organizations, all these based on the network capabilities<sup>6</sup>, which are ensured and settled to exploit the organizational synergies within the new operational capabilities.

Ensured by a modern and integrated system, the intelligence organizations will face the new challenges of the future intelligence confrontations in order to succeed<sup>7</sup>; all these by

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<sup>6</sup> The network – in the intelligence operations is defined by the following characteristics: it represents a network developed in an entire system of networks, which succeeds the area of the security institutions; good capacity of working, rapid configuration, and support by opportune warning; security; viability.

<sup>7</sup> According to Cristea Dumitru, “NATO perspective concerning the informational superiority and the capabilities that rely on network”, in *Romanian Military Thinking*, no. 1/2005, edited by the General Staff, CTEA Publishinghouse, Bucharest, p. 21, the necessary capabilities for success include: the improvement of the intelligence services, the correct management of intelligence, as well as the ability to predict and to act; the improvement of cooperation and coordination, at all levels; the leadership ability to conduct



using flexible and adaptable capabilities, with the support of the legal beneficiaries, authorities and civil society.

In the near future, the informational confrontation will focus on operations that rely on effects and that are developed at all levels and this is why NIC can be approached from three perspectives: *decisional superiority; the coherence of the effects; support and integrated intelligence operations.*

The security challenges in our society include a variety of very complex problems, which indicate a new sophisticated informational confrontation which implies<sup>8</sup>:

- political and social movements – which are amplified by the modern communication and information systems and by the media tools;
- economic and social unbalance – which are influenced by the migration phenomenon and by the massive demographic changes;
- the increase of corruption in the decision-makers environment – all these because of the influence of the transnational illegal networks involved in money-laundering, weapons, medicines smuggling or human trafficking;
- the increase of conflicts / violence inside states and between them, as well as the interest in the strategic areas based in the competence for resources and global common goods;
- exploiting the security breaches of the global or national communication networks in order to conduct illegal activities of electronic espionage – focus on valuing classified information and strategic decisions;
- controversial reactions and influences concerning the ethnic, sectarian confrontations;
- tensions created due to the failure of public policies, or actions of the authorities conducted against their own population which is under its economical-social conflicts.

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other operations than war, to also include post-conflict operations.

<sup>8</sup> In developing this statement, I also used the article, INSA - Intelligence and National Security Alliance (2012) – *Expectations of Intelligence in the Information Age*, Rebalance Task Force, p. 4, available at <http://cryptome.org/2014/11/insa-ei-ia.pdf>, accessed on 28.01.2015.

While approaching these perspectives, the modern, future and hybrid conflict is specific to the global strategic environment and it also leads to emergent threats, where the intelligence organizations establish their objectives and operational decisions. The paradigm of the informational confrontation means to apply the future challenges in the current operational environment by adopting a high level of vigilance.

Given these coordinates, at large scale, we asses that the intelligence perspective will focus on managing some directions of intelligence conflicts, amongst which:

- *Cyber threat* - defined by cyber-attacks and cyber-espionage, that is focused on sensitive intelligence and on “know-how” in the strategic fields, where the “hacking” process in materialized in “*the network of demonstrative or propagandistic attacks – the virtual base of the fight companies and promoting the antagonist segment*”<sup>9</sup>. Using the informational technologies improves the economic and the military advantages and it also amplifies the competition for digital space and it also induces new types of threats.
- *Transnational terrorism* – following the development of a new type of terrorism of radical<sup>10</sup> islamic inspiration, it was created in the context of some specific tools which ensured its success. The danger perspectives are amplified today by the migration processes to the European states of some potential actors of the jihadist movement from the Middle East.
- *WMD proliferation* – based on some states concerns to develop and proliferate WMD or technologies that may contribute to the consolidation of the already existent nuclear programs, context in which it interferes with the modern intelligence. All these are conducted in

<sup>9</sup> \*\*\* *Report concerning the policy of the security information of the Italian Republic*, 2013.

<sup>10</sup> The ideology of the Islamic terrorism is inspired from the Salafi ideology, presented as alternative to globalization that implies the initial caliphate, based on the rough interpretation of the Kuran. This “war of the civilizations” is associated to “jihad” - that reforms the Muslim religious center and then the split between Western people and Muslims, also by attacking the places where they live.



the perspective of acknowledging and managing technologies, as well as from their perspective of monitoring the intelligence meant to identify the networks through which weapons are smuggled as well as finances are transferred. All this process is meant to identify the non-democratic regimes or those that cannot provide sufficient guarantees, inclusive those elements that are in the international files as Iran and North Korea.

- *Espionage* – based on the constant development of the foreign Services' methods and technologies in protecting their national security and their informational systems. Espionage/Counter-espionage – is still a complex activity which has to respond to the aggressions of some state-actors which become inevitable “partners” for the strategic interests of the states. The protection of the industrial, economic and science interests and the technological “know-how” – represent a part of the national intelligence, where strategic competitiveness is a main characteristic in the ongoing processes of reform.

- *Defending law enforcement agencies and the constitutional values* – will be provoked by the technological evolution by influencing the leadership processes, by altering the public decisions and by restricting citizens to access public services. Citizen's security, the religion or extremism related actions, communication interception as violating private life, have to be carefully kept under loop by the Intelligence Services, because their main objective is to acknowledge, to prevent, to protect and to counteract.

- *Transnational organized crime* – which is due to the emerging effects of global economic growth and unprecedented development of information technology, acts to extend influence and power organizations, eroding and degrading the strategic environment and threatening the vision of a stable and desirable society. The interference areas of organized crime is targeted (commercial area - customs, the financial area - banking, economic and social area), often interfere with the objectives of international terrorist groups;

- *Asymmetric dimensions of the informational confrontation*, the objectives of the intelligence community (IC) are to highlight the major impact

events that can lead to economic crisis, instable states, as well as the competition for hybrid threats, technological changes, etc.

Given these coordinates and concerns, the process of IC modernization and developing, it is mandatory to be involved the adequate fundamentals of national security based on intelligence – concerning the acknowledge and prevention of sophisticated threats and risks of the current society.

### **2. The National Intelligence Community within the XXst Century security paradigm**

The future society acclaims the IC development, which is a high reliability organization that brings value to knowledge management, introduces a cultural revolution within the intelligence field and explores in an efficient way the sectoral smart strategies specific to ensuring national security. An integrated approach of the current evolutions in geopolitics and in modern intelligence is imperative.

When acting in a competitive environment where intelligence is the powerful resource, and its main goal is to win the informational confrontation, NIC represents the “the Intelligent Organization of Intelligence” and it is always in accordance with the policy of the social community which it defends and promotes.

#### ***2.1. General landmarks concerning the adaptation to the modern informational processes***

Approaching the conceptual triad made of synergy, management and information technology – as paradigm of the intelligence systems, NIC integrates within the characteristics of the intelligent organization and the adaptation of successful strategies is based on valuing the synergies and new technologies as follows:

- the coordination of the sector programs;
- vertical integration – with efficient effects of the organizational capabilities and technological know-how;
- disseminating and valuing the new knowledge;
- planning tangible resources;
- sectors and intra-sectors development.

Starting with the challenge given by the



title of this section of chapter, we can assess that in the modern society, the space of WMD proliferation become critical actors and provide the informational confrontation with new characteristics.

From this perspective, the competitive power of the modern organization is determined by:

- the implementation of information technology and the usage of some organizational capabilities within the process of accessing relevant information, obtained ad-hoc and from various sources;

- development of knowledge and organizational evolution perspectives by selecting and exploiting data;

- organizational flexibility and availability for opportune structural reforms;

- valuing the knowledge for investing in people and in modern intelligence systems that create the competitive advantage;

- the degree of organizational synergy obtained by the implementation of good practices and by developing the interactions among people, in order to improve the economy of information and at the same time avoiding failure;

- the implementation of modern management systems based on knowledge/intelligence that are able to provide rapid, precise answers as well as adequate reaction and resilience capacities, all these in a complex and unfriendly informational environment, characterized by multiple pressions;

- the development of “cloud” type approaches, inspired from programs developed by large companies such as “Amazon”, “Google” and “Facebook”, as well as the open source analysis systems (“Hadoop”, “Facebook”, “Linkedin” and “Twitter”).

To these is added the the interest of the Community for the current operational environment by redefying collaboration as valuable opportunity (based on exploiting the synergies and reaching the strategic objectives), as well as exploiting the inter-sectors synergies within the informational systems. This process involved the mutual dependence of each partner

in order to accomplish their tasks. Joint efforts lead to efficient effects and both to identify the vulnerabilities in the involved systems.

Given all the above-mentioned details, the importance and the relevance of the current knowledge, respective gaining a better insight of the characteristic specific to the society of knowledge is based on the availability of accessing a huge volume of public information of all sciences, technologies and social activities. In this process, the competition is ensured by the perspective of establishing the differences and the relationships between the sources of information and the method used to create a new type of knowledge that implies national security or the activity of intelligence. As such, there appears a new type of thinking: *network thinking*.

### ***2.2. (Re)Defining the Modern Intelligence Community (MIC)***

Developing a modern intelligence project, adapted to the current society, whose premises are generated by a strategic context and that has to respond to the future challenges and to the objectives of a new type of informational confrontation represents a national effort that replies in an intelligent manner to national priorities, laws and monitoring from the authorities.

In our vision, MIC represents an intelligence organization of high viability, competitive concerning strategic previsions, intelligence supportive, dynamic, flexible and adaptable to the new changes within the security environment. The operational performance is ensured by valuing the organizational and operational synergies and in the efficient parameters, as well as obeying the national and international laws concerning the human rights.

The organizational and the conceptual progress generates new dimensions for the human resources and its competences within some integrated structures, civil – military, as well as concerning the exchange of information and the ability to adapt to new situations.

Based on the current informational confrontation, the processes of reform in the





context of efficient national intelligence gathering, determined the reshaping of the missions, objectives and capabilities, as well as a better development of the relationship with the national decision-makers. In this context, the new dynamic challenges in the security environment involves the ability to create some fusion capabilities of the intelligence, the development of network type systems (*network - centric*), as well as the issue of Strategic Vision – with new trends that may lead to the evolution of national and international security - all these based on new operational concepts that favor knowledge, amongst which we mention: *Intelligence 2.0, ethics and intelligence public responsibility, the transition to the 3.0 society, new – media influence* within the current environment of interconnectivity, public intelligence, the intelligence culture, etc.

MIC – intelligence organization which represents a strategic profile that targets the security status and promotes national interest that becomes the result of the transformation processes and the organizational adaptation to the security environment, based on the integration of *high-tech* and the revolutionary results of the information technology, as well as of the manner of conducting intelligence operations (security projects, informative operations). From a primary perspective, MIC integrates the informative structures of the democratic state, having the strategic function to manage the cooperation/ collaboration processes based in trust, security information and interests.

As representing the internal image of the organization and its goals, MIC's strategic vision represents the medium and long term ideal evolutionary frame, in a paradigm that explains to the governmental officials the evolution of the security environment, and to the network partners that the intelligence overcomes MIC's functional frame and that conducting the activity of national security involves joint efforts.

The stake to create MIC is represented by its strategic leadership and the capability to anticipate the competitive advantages through network agreements. The operational perspective

of MIC is represented by adopting and implementing at organizational level a security type management.

From this perspective, MIC develops a new intelligence profile that promotes efficiency, flexibility and the capabilities to reach the national security goals, all these being taken into account both with the risk scenario, to also include the identification of new shapes of threats.

### **2.3. MIC strategic mission**

*MIC's strategic missions – represented by gaining the decisional advantage that means safety of security services – what this Organization is and what it intends to do for the society.*

Gaining the decisional advantage represents MIC's ability to elaborate and provide the legal beneficiaries with all the necessary informational products that may reduce the risks and that may also facilitate the obtaining of a real advantage. This process may also involve the optimal state of security where its goal is to win the informational confrontation. The organizational adaptation, the experience and the command and control mechanisms represent the strategic fundamentals for accomplishing the missions of the organization.

### **2.4. MIC – “Knowledge Provider”**

Given all the above-mentioned projects, we can assess that it is mandatory for MIC to develop the transformation of the intelligence services culture. In the context of the projects presented, we can say that it becomes imperative today for CNI to generate the transformation of the intelligence culture from a secrecy one into a participatory one, and also of the security dimension from the prerogative of state institutions to a common good.

Given the situation that the current and future society determine new changes, the approach in a network of MIC's activity involves the adaptation to the new concepts and to the new informational technologies. A new process of organizational change is mandatory to happen, where effort and time are involved, as well as the understanding



the value of the final purpose.

MIC's leadership has the responsibility to use the best capabilities, as well as to apply the laws concerning the human right. The efficacy of the actions also involves MIC's availability in assessing all the actions and decisions.

### Conclusions

As a consequence, in the future informational confrontation, MIC will ensure the accomplishment of all the objectives and national priorities concerning national security, in accordance with the laws – all these in an integrated strategic frame that guides the planning processes (budget, integrated evaluation and intelligence activities).

In order to have an integrated approach of the intelligence activity within MIC, several clarifications are required so that all the strategic purpose of the organization may be achieved, as follows:

- the conceptual and active compatibility between the organization and the intelligence structures that creates the modern state;
- clear delimitation of MIC's structures (missions, programs managers and positions);
- defining the operational and technical / technological competences;
- the increase of the degree of internal cooperation in the intelligence field and eliminating the unproductive competition between the structures of the community;
- the initiation and the managing of public-private partnerships on security projects that are of interest for the operational structures of the community;
- the development of organizational assessment, of rewarding the performance, and to improve the internal and external communication (with the legal beneficiaries).

Starting with these assessments, we would continue to develop future articles with theoretical approaches of the strategic objectives of the Intelligence Organization and its actions that may contribute to a new reform of the current MIC and that may lead to a new approach of all the social

actors that benefit of this strategic resource.

In the end, we would like to mention that the main idea of this analytical assessment is the necessity of obtaining significant progresses concerning the cooperation and the exchange of information between services, as well as the fundamental need of consolidating the institution, detail which may offer a better insight concerning the integration of the vital components of the organization.

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# ECONOMY AS AN INTEGRAL PART OF NATIONAL SECURITY

*Irina TĂTARU, PhD\**

*The opinions expressed in this paper reflect important economic and social aspects of national security, highlighting some recent developments arising from vulnerabilities and causes that undermine and / or affect the security and stability of the national state.*

*The frequent changes in the political, economic and military situations that occurred in the last years show slight tensions of the international relations and a massive increase in the economic gaps between countries and regions that may further degenerate into severe economic crisis. Our scientific approach focuses on analyzing the economy as an integral part of national security and the environment as a pillar of national and international stability.*

**Keywords:** *security, economy, environment, sustainable development.*

## **Introduction**

National security can only be achieved on a well-defined economic support which has enough material, financial, scientific, human premises “To discuss about the national security, or to design without having in mind its economic component is similar to rising a sand castle close to the sea waves.”<sup>1</sup> Thus, economic security is an essential component of national security. This is mostly visible when the economic situation

encompasses features like balance, legality and sustainable development. The most important risk factors that affect the security of a state are of economic nature; for e.g. risks relating to the supply of raw materials, lack of funds needed for investment, the absence of markets’, environmental degradation, lack of reliability of the nuclear power plants, restrictions on access to natural resources and so on.

Based on elaborated strategies, the economy puts into operation a political concept, developing financially effective and rational policies. At the same time, economic and financial interests form a solid support of a state policy. Hence, the actual quality of economic and financial policies depends on the combination of the aforementioned elements with military, social, environmental and cultural responsibilities of a state. The aim is to be able to develop favorable decision making leading to positive developments in economic security.

Achieving security and national defense depends heavily on economic resources owned by a country at a respective point in time. In a global environment this is especially viable with economic power being imperative in designating the role of a nation regionally and globally.

## **1. Economy, component of national security**

The last decades portray a new hierarchy for the security areas, with economic, ecological,

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<sup>1</sup> Marin Dumitru, *Componenta economică a securității*, Editura UNAp, București, 2004, p. 25.

*\* Irina TĂTARU, PhD in Military Science, is Expert with Centre for Defence and Security Strategic Studies, Bucharest, Romania. E-mail: tataru.irina@unap.ro*



political and, later on, military components being primarily influential. The fight for resources has increased and the economy has become a veritable place of confrontation in order to achieve strategic and political objectives of security of states. In other words, a loss in the economic field would translate into a significant loss of political capital, which equivalents with a much heavier defeat than a military one.

Also the quality of economic growth (whose source is determinate by consumption) has a major role in the economic development. What does, however, improve the quality of economic growth? Firstly, the development of the industry and agriculture. In Romania, the industry growth rate, especially the manufacturing area, has decreased. The process of restructuring the economy is slow and local producers cannot handle the rising demands. Consequently, over 82% of the increase in the intern demand is met by imported goods.<sup>2</sup> Demand increases both because more and more money are transferred home by Romanians citizens working abroad, but also because of the internal increase in income. Exports are discouraged by a multitude of factors with competitiveness of local production steadily declining – mainly due to the increase in energy resources prices. As a consequence, the goods become more expensive, manufacturers spending more on electric power, gas and other raw materials. Romanian products cannot compete with foreign ones on either European or domestic markets, given that foreign producers are granted subsidies and other tax benefits by governments of countries where they operate. Also, sanitary and phytosanitary standards on export to the EU countries are very strict.

## 2. The economy and the environment

With regards to the environmental objectives that the EU has set for 2020 since 2007, they include: 20% reduction of greenhouse gas emissions; increasing energy efficiency by 20% and 20% increase in renewable resources energy

<sup>2</sup> Combaterea schimbărilor climatice și dezvoltarea economică, [http://ec.europa.eu/news/energy/080123\\_1\\_ro.htm](http://ec.europa.eu/news/energy/080123_1_ro.htm), accessed on 10.07.2015.

use out of the total energy consumption.<sup>3</sup> Further, the quoted below reveals the position on these issues of the previous President of the European Commission – José Manuel Barroso: “Our mission, indeed our duty, is to provide the right policy framework to transform the European economy into an economy with reduced carbon emissions and to continue to lead the international action to protect our planet”. The package of measures to combat climate change aims to ensure the sustainable development of the planet, provide new business opportunities for European companies and improve security of energy supply through a shift towards renewable resources energy.

Taking into account that economic and social developments are interrelated and influence each other, a synchronized and multilateral perspective for development should be used to advance both these areas. Economic growth alone cannot be pursued at the expense of ignoring social contradictions, since the latter will become the trigger of social instability. In this regard, we note the initiative of former United Nations General Secretary, Kofi Annan<sup>4</sup> to implement a complex strategy based on economic and social development focused on poverty elimination, jobs creation and building a harmonious society.

## 3. Sustainable development, prerequisite for economic development

The environment is increasingly threatened by human activities driven by excessive use of natural resources. The effects translate mostly into large scale pollution of air and water. In the last thirty years, the European Union has been increasingly active in this area, proposing programs and approving policies to protect the natural environment. It has stimulated investments in creating new means of production that do not harm the environment (“Clean technologies”) and helped shaping public opinion for a better

<sup>3</sup> *Idem.*

<sup>4</sup> Cf. Les Objectifs de L’Onu pour le Développement, [http://facultate.regielive.ro/referate/franceza/expose\\_les\\_objectifs\\_de\\_l%C3%A2\\_onu\\_pour\\_le\\_developpement-39216.html](http://facultate.regielive.ro/referate/franceza/expose_les_objectifs_de_l%C3%A2_onu_pour_le_developpement-39216.html), accessed on 11.07.2015.



understanding of the dangers associated with pollution.

The EU Model has been and continues to be shared by most Member States. Based on cooperation and reciprocity, the member states recognized pollution cannot be limited by interstate borders and have initiated a number of relevant actions in the field.

The lack of resources or uneven access to these affect relations between states. Due to: natural disasters becoming more frequent, high scarcity of energy resources, population growth in developing areas where food and water supplies are low and global warming – the stability and security of states is reduced and their economic development stagnates. Poor governance, social problems, ethnic and religious conflicts, fluid and unpredictable international relations have led to large-scale economic problems, even causing the collapse of some states. This is the reality of the current security environment which requires the creation and strengthening of partnerships, but also new forms of regional and global cooperation. The global economy is increasingly dependent on energy resources, with the main resource, oil, being currently the cause of many conflicts worldwide. On further analysis, one can easily notice that most often conflict zones are also the areas with important natural resources, but with an economy generally underdeveloped. All in all, it can be said that this century's geopolitics has been caused by the fight for resources.

#### **4. National security, supporting pillar of economic development**

In a state with a stable security environment, economy is growing. This is due, firstly, because the state allows itself to participate in beneficial partnerships and forge alliances that can attract foreign investment. This allows the state to develop their economic infrastructure, use tourism potential, own stable outlets, and have a low unemployment rate and a high living standard. Also, a developed economic nation can negotiate favorable terms during economic exchanges, attract foreign investment, ensure a decent living

standard for its citizens and allocate substantial funds to important sectors like health, education, social protection – the prerequisites of a stable security environment. It also has a high GDP and thus a consistently high defense budget.

Between the two components, namely economic development and security, there is a strong dependence. Thereby, the more economically developed a country is, the more stable its security environment is. Similarly, the reverse is true: the more stable is a security environment, the stronger and obviously sustainable is the economic development of a country. This can be seen from a careful analysis of the developed countries. Thus, if we consider the main world powers, we find that these are countries with a stable security environment. The only major threats to their national security are terrorism and natural calamities, but these can also be controlled to a greater extent than in developing countries.

The main current risks and vulnerabilities against the security of a nation are generated or can be influenced worldwide by the following aspects: political instability, fierce competition for control of strategic resources, national and international corruption and organized crime, ethnic and religious politicization, legal and illegal migration, environmental degradation.

The security concept must be viewed in close correlation with the associated notions, such as national interests, national security system and institutions, national security strategy policy and means of security, national security policy objectives and national security principles<sup>5</sup>. Based on these correlations, security must be addressed as a system, since the concept involves several dimensions – political, social, military, economic and informational.

Currently, we are on the verge of a new industrial revolution which generates a fundamental structural change in the global economy. The traditional model of economic development – where GDP growth is associated with relatively high energy consumption and

<sup>5</sup> D. Dumitraș, I. Giurcă, *Alianțele și coalițiile politico-militare*, Editura Universității Naționale de Apărare "Carol I", București, 2004, p. 29.



carbon emissions growing – is no longer viable. Moreover, it is unsustainable in terms of energy and climate security. As we intensify carbon emissions into the atmosphere we are accelerating climate change and, nowadays, this is not an environmental issue that should concern only the environmental specialists. Climate change has consequences related to human existence itself. Consequences such as floods, famine and disease amplify the migration phenomenon in areas where there are already tensions. Similarly, drought and changes in agricultural crops generate more competition for food, water and energy in regions where resources are already low.

### **5. International Security, the supporter of a healthy environment**

NATO, the strongest international political-military alliance has the strategic objective to ensure freedom and security of all its members by political and military means in accordance with the North Atlantic Treaty and the principles the United Nations Charter. The Alliance is concerned with reducing the effects of military activities on the environment. Since it was faced with major challenges to a healthy environment, it established, since 1969, the Committee on the Challenges of Modern Society.

Over the years, the allied countries have established numerous NATO assemblies to address environmental challenges. Currently, NATO's activities in the field include:

- protecting the environment from harmful effects of military operations;
- promoting ecologic management practices in the areas of training and during operations;
- continuous military adaptation to a hostile physical environment;
- readiness for response to natural or anthropic disasters;
- impacts of climate change;
- educating NATO staff on all aspects of the environment;
- supporting partner countries in building local capacities;
- increasing energy efficiency and independence from fossil fuels; and
- building green infrastructure.

All these activities fall into two broad categories: environmental protection, namely protecting the physical and natural environment from the negative impact of military activities and environmental security, assuming an approach to security challenges being generated by the physical and natural environment.

Military activities often have a negative effect on the environment in which it is conducted. Damage to the environment caused by these activities can threaten livelihoods, habitats and the human race, generating overall instability. Since the 1960s, environment experts have argued that the army should take measures to protect the natural environment from the harmful effects of its activities. Environmental degradation can cause social and economic instability and new tensions, while protecting the environment during a military operation can enhance stability and promote sustainable security. Therefore, minimizing that environmental damage during training and military operations is of great significance to the overall success of the mission.

NATO member countries are aware of the environmental challenges during military operations and adopted rules and regulations for environmental protection. NATO measures vary from protecting hazardous materials (including fuels and oils), wastewater treatment, reducing the use of fossil fuels and waste management. In line with these objectives, NATO has facilitated the integration of environmental protection measures in all military activity levels led by the Alliance.

To ensure the aforementioned standards are fulfilled, the members should receive appropriate training on environmental protection. While such training is primarily a national responsibility, it is NATO's ambition to provide general support and education in environmental issues for a more efficient process. Environmental awareness is needed in daily routine of military personnel, as well as increased personal responsibility in this area. To advance this goal, NATO has appointed staff officers for the implementation of environmental protection at strategic, operational and tactical level. NATO School in Oberammergau and the Military Engineering Centre of Excellence provides environmental



protection courses and specific training. Also, NATO Science and Technology Organization (STO) promotes and carries out activities of scientific research regarding specific military technical challenges, some of which are strictly related to environmental issues.

### Conclusion

National security and economic strength are inextricably linked. State economy is the foundation of its military and political power. Stimulating economic growth helps decrease the pressure on the defense budgets and foreign affairs which reduces the ability of states to cope with Black Swan<sup>6</sup> type events.

Following the financial crisis, states have transformed internally focusing more on creating jobs and reducing income inequality at home, rather than sending aid and personnel abroad. The world has changed and in the same time increased challenges appeared for national security. Irrespective of the issue of size, capacity or military competence, the economy can influence the debate on national security from a three overlapping roles. The first is economy as a source of material and personnel funds (including military). Secondly, there is economy as a provider of economic security and welfare for the population. Thirdly, there is economy as interaction platform between countries to jointly build or have competing interests. Economy also provides a cultural model, as well as other elements of soft power, particularly useful when trying to gain people's confidence.

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<sup>6</sup>Nicholas Taleb - initially the metaphor referred exclusively to finances, then it was extended to great scientific discoveries, historic events and artistic achievements - unforeseen events with major effects.





# NEW HUMAN RIGHTS RELATED TO THE NEED TO COUNTER NEGATIVE EXCESSIVE STRESS (4TH GENERATION OF HUMAN RIGHTS)

*Mădălina Virginia ANTONESCU, PhD\**

*Our intention in the present paper is to outline certain unconventional forms of aggression against the human body, in the context of the new challenges of the 21<sup>st</sup> century global world and of the pronounced urbanization and industrialization: one of these forms of aggression is excessive negative stress, which should be legally regulated in an adequate manner, at constitutional, regional and international level. Thus, we propose a human right to be protected from negative excessive stress, which might be defined in the regional, international legal documents as a 4<sup>th</sup> generation fundamental human right, which is also acknowledged in a distinct article of the Romanian Constitution. Specific sections of the article also approach a series of rights related to or derived from this right, as well as methods to manage stress, in relation to human security.*

**Keywords:** *stress, human security, human rights, pollution, stress management.*

## Introduction

The international law doctrine (more specifically, the environmental international law) accepts a particularly innovative perspective, in our view, on the definition of pollution and

forms of pollution, which has yet to be explored sufficiently by the human rights doctrine. Most of the authors in the field of human rights do not consider that stress is a form of pollution typical for the intensely urbanized society of the global world, at the beginning of the 21<sup>st</sup> century. Actually, stress is completely neglected by the field of human rights, as a form of aggression (natural or artificial) against the human body, the quality of life (especially in large cities), as it is present in *certain activities, situations and professions* exposed directly or to a larger extent than others to the conditions of negative excessive stress (situations of freedom deprivation, military operations, situations of armed conflict, natural or manmade disasters, war situations, massive movements of people, people seeking refuge from conflicts or calamities). However, we cannot ignore the opinion of the specialists in studying stress, i.e. that *protecting oneself completely and permanently from stress is impossible, as stress is as natural in a person's life as body temperature*<sup>1</sup>. The situation of complete cessation of stress against a human organism only occurs when the

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<sup>1</sup> Hans Selye, *The Nature of Stress*, International Institute of Stress, University of Montreal, Canada, [www.icnr.com/articles/the-nature-of-stress.html](http://www.icnr.com/articles/the-nature-of-stress.html) și <http://www.stress.org/stress-effects>, accessed on March 5<sup>th</sup> 2015.

*\* Mădălina Virginia ANTONESCU, PhD in European Law, is a scientific researcher at the Romanian Diplomatic Institute and a honorary researcher at the Romanian Institute for Human Rights. E-mail: [vam55ro@yahoo.com](mailto:vam55ro@yahoo.com)*



respective organism ceases to exit.

The doctrine acknowledges that *pollution* can be of chemical, physical (radioactive, thermal, phonic, electromagnetic, vibration-generation), biological or aesthetic nature<sup>2</sup>. Other authors discuss other forms of pollution, such as cultural pollution or moral pollution<sup>3</sup>. All these types of pollution can cause negative excessive stress to the human body.

Concerning the *methods of countering or managing human negative excessive stress*, the doctrine considers that following stages such as the stages below would be appropriate<sup>4</sup>:

- *Acknowledgement of the stress factors* (which are individual)<sup>5</sup>;
- *Taking action to manage stress* (although there is no universally valid method to counter it, since stress differs from one person to another). However, the specialized literature acknowledges that this strategy includes case-related discussions, individual and collective relaxation techniques<sup>6</sup> (in the workplace, at school, during classes of relaxation<sup>7</sup>, interaction

<sup>2</sup> Daniela Marinescu, *Tratat de dreptul mediului*, 4<sup>th</sup> edition, Universul Juridic Publishing House, Bucharest, 2010, p. 23.

<sup>3</sup> Irina Moroianu Zlătescu, Octavian Popescu, *Mediul și sănătatea*, IRDO, Bucharest, 2008, pp. 87-92.

<sup>4</sup> For additional information, see Melinda Smith, Robert Segal, Jeanne Segal, February 2015, [www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm](http://www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm), accessed on March 5<sup>th</sup> 2015.

<sup>5</sup> <http://www.stress.org/stress-effects>, accessed on March 5<sup>th</sup> 2015. Also see <https://www.surveymonkey.com/s/humanrightsimpacts>, accessed on March 5<sup>th</sup> 2015 and <http://chrjg.org/project/mental-health-impacts-of-human-rights-fact-finding>, accessed on March 5<sup>th</sup> 2015.

<sup>6</sup> For additional information, see Melinda Smith, Robert Segal, Jeanne Segal, February 2015, [www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm](http://www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm), accessed on March 5<sup>th</sup> 2015.

<sup>7</sup> *Tai chi chuan* (for centuries, it represented one of the most widespread systems of exercises in the Oriental culture, which is considered to bring balance and harmony between the yin and yang energies). *Qigong* (term used for several forms of exercises, with the role of increasing the Qi/the vital energy of a person) or *Pranayama* (control of breathing in yoga), which have become true national sports, in certain countries, meant to ensure the good health of the human body and, implicitly, meant to counter negative excessive stress. For more information, see Louise Taylor, Betty Bryant, *Ki. Energia vitală*, trad. Mihai-Dan

and dialogue between pupils and teachers, students and professors, about the stress-related issues and symptoms). A stressed society is a society which is not aware of its *vulnerabilities, caused by stress, especially by collective stress, which can extend up to the level of peoples* – becomes a society that cannot create a valid culture, that is vulnerable to external dangers, cannot find solutions for survival and prosperity, focusing only on the negative aspects of existence, a society that is fragmented and incapable of providing a coherent collective, clear and firm response to the factors or agents following the logic of dividing and interests against the interest of the respective society. Therefore, it is highly important to become aware at individual and society level (ethnic group, urban/rural community, people, local collectivity, civil society) of the importance of stress in the process of adopting decisions, in the process of taking action in fields important or vital for the national politics, in the day-to-day and military activities. *Identifying and managing stress situations must represent a distinct chapter in the national defence strategies of a country*, especially in situations of *unconventional war* (information, imagological, symbolist etc.), to which the 21<sup>st</sup> century society exposes the individuals and the society. *Managing, countering albeit partially, minimizing the negative effects of stress* (but not minimizing stress as a challenge at military level, in this context) must be the constant and careful preoccupation of the employers in the public and private sector, as well as of the employees in the military, intelligence, mass-media, human rights defence field (representatives of the civil society, journalists, observers from international organizations, sent in missions, in conflict areas, directly confronted with massive infringements upon the human rights, with cases of natural disasters or manmade calamities, wars, pandemics or other similar situations generating traumas and negative excessive stress);

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Pavelescu, Ed. Teora, București, 2008, pp. 82-83, 123-124. The work presents special techniques to reduce stress (the Occidental view on countering stress being different from the Oriental approach to stress), pp. 152-176.

- *supporting the stress-related cause*<sup>8</sup> (from forming a group of discussions regarding the identification and management of stress, with practical application on the concrete cases of the group participants, to the departments specialized in stress management, in the workplace and in public or private institutions specialized in methods to counter stress and manage it, in workplaces, schools, hospitals, military units etc.);

- *acquiring clear legal regulations* to prevent the mass media from broadcasting images with violent, vulgar, discriminating, offensive content against categories of people (especially against women), which constantly cause a level of negative excessive stress (by constantly causing depression, despair, aggressiveness, terror, fear, panic, hatred), at the level of certain very large collectivities, up to the level of peoples (even generating a sense of destruction at the level of identity as a people, at the level of positive individual identity). *Benefiting from messages and information with positive content, with positive impact on the physical and mental state*, is a human right, because an unlimited freedom of speech (as proclaimed by the mass media) causes negative effects on other human rights (it damages the right to physical integrity of the public, the dignity and sense of honour and individual respect, the right to happiness and to having positive ideals in life, even the right to life itself, the freedom of person etc.). It is important here to note that the human rights must be regarded as permanently interconnected<sup>9</sup>; thus, *it is not possible to construe a fundamental right/freedom against other fundamental rights and freedoms. A hierarchization of human rights is not accepted*<sup>10</sup>, therefore it is not accepted

<sup>8</sup> <https://www.surveymonkey.com/s/humanrightsimpacts>, accessed on March 5<sup>th</sup> 2015 and <http://chrgj.org/project/mental-health-impacts-of-human-rights-fact-finding>, accessed on March 5<sup>th</sup> 2015.

<sup>9</sup> Raluca Miga-Beștelu, *Drept internațional. Introducere în dreptul internațional public*, All-B Publishing House, Bucharest, 1998, p. 204.

<sup>10</sup> Dumitru Mazilu, *Drepturile omului. Concept, exigențe și realități contemporane*, Lumina Lex Publishing House, Bucharest, 2000, pp. 84-85. Ion Diaconu, *Drepturile omului*, IRDO, Bucharest, 1993, pp. 31-34. Adrian Năstase, *Drepturile omului, religie a sfârșitului de secol*,

that the freedom of speech (and of presenting anything) used by the mass media to “get rating” (thus, for private economic purposes, *not in the civil, common interest of the respective nation* or in the interest of protecting *all* the human rights *equally*) be considered superior to other rights and freedoms of the human being (for example, the human right to happiness, the human right to dignity or freedom – the freedom specified in the UN documents, the freedom of being protected from terror, atrocity and fear)<sup>11</sup>. *Freedom from want*<sup>12</sup> is one of the most important fundamental freedoms of the human being, *directly connected to the human dignity, to the right to peace and safety of the person, to the right to happiness, to the human right to prosperity* (exceeding the right to a decent life or the measures to eradicate poverty, from the viewpoint of its legal content), *to the right to culture* (since most of what the mass media distribute is either pseudo-culture, or anti-culture<sup>13</sup>; in this context, the right to culture is one of the 2<sup>nd</sup> generation fundamental human rights, for which the state must ensure *real exercise*).

However, the international environmental law doctrine *expressly acknowledges stress* (defined as “aggression against the body, caused by noise, pollution, anguish, various contradictions, workplace pressure<sup>14</sup>, as well

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Ed. IRDO, Bucharest, 1992, pp. 64-65, where the author considers that “from a strictly legal standpoint and considering the stipulations included in the international instruments concerning the human rights, the idea of such hierarchy cannot be supported, as the rights must be equally observed”.

<sup>11</sup> For example, in the preamble to the Universal Declaration of Human Rights, adopted by the UN GA, through Resolution 217 A (III) of December 10<sup>th</sup> 1948. In *Principalele Instrumente Internaționale privind drepturile omului la care România este parte*, vol.1, *Instrumente universale*, IRDO, Bucharest, 2002.

<sup>12</sup> Preamble, paragraph 2/Universal Declaration of Human Rights.

<sup>13</sup> Dumitru Mazilu, quoted op., pp. 113-118.

<sup>14</sup> The issue of *workplace stress* (already approached by the Occidental specialized literature, in the Occidental doctrine of human rights) and the absence of an adequate legislation, at regional, national and international level, to protect the human being and his/her rights in the workplace, *in relation to a hostile, stressful, tense work environment, impact a person/group of people* (the right to life, the right to happiness, the right to rest, the right to labour, the right to professional promotion, the right to health, workplace



as their consequences on the human body”) as “another form of pollution, particularly of the modern world”<sup>15</sup> (we would say that, at the beginning of the 21<sup>st</sup> century, in the context of urbanization and globalization of the world, that it is a form of aggression against the human body *specific to the postmodern world, its impact including the quality of life and other human rights, on their concrete benefit*).

In our opinion, what the *content* of the “human right to be protected from stress” (which we propose in the current article, as part of the 4<sup>th</sup> generation of human rights) intends to reveal is the set of *derived rights, which can counter stress or help manage it*. They can also be called “rights for partial countering or management of stress”, since it is impossible to propose a right to *completely* counter stress, given the nature of stress, with relentless impact on the human body<sup>16</sup>.

At the same time, it is important to note that we envisage only *negative excessive stress*, not other forms of stress and, secondly, we propose here a right to be protected from negative excessive stress *as an individual right* (intuituu personae), while we will discuss in a future article the nature of the human right to be protected from stress, *as a collective right (envisaging collective subjects of law, such as the peoples), issue in which, in our opinion, there is an important correlation to the right to happiness of the peoples*.

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discrimination, the right to free expression etc.) will be subject to a special article dedicated to this issue, concerning the manners in which the human rights are infringed upon in the workplace, through forms insufficiently regulated at the present time (infringements *exceeding the legal concept of “harassment” of an employee, causing for the latter a state of negative excessive mental or physical stress, with direct and concrete negative consequences on the rights of the employee, the right to health being included*). See Australian Human Rights Commission, *Stress*, <https://www.humanrights.gov.au/quick-guide/12100>, accessed on March 2<sup>nd</sup> 2015.

<sup>15</sup> Daniela Marinescu, quoted op., p. 26.

<sup>16</sup> Hans Selye, *The Nature of Stress*, International Institute of Stress, University of Montreal, Canada, [www.icnr.com/articles/the-nature-of-stress.html](http://www.icnr.com/articles/the-nature-of-stress.html) și <http://www.stress.org/stress-effects>, accessed on March 5<sup>th</sup> 2015.

## 1. The Human Right to be Protected from Negative Excessive Stress

According to the international environmental law doctrine, the term “stress” is considered to originate in the 19<sup>th</sup> century, being invented by Anglo-Saxon engineers, “in order to designate the force which, used on a body, induces a certain tension”. Subsequently, the term was taken over by Canadian doctor Hans Selye who coined it in the medical field, in 1936<sup>17</sup>.

In a definition, stress represents “the adjustment syndrome of the body, which the person develops *as a result of the impact of the environment, including strain, tension, force, constraint, pressure, mobbing*”<sup>18</sup>. According to Hans Selye, stress is regarded as “a set of reactions, such as strain, tension, constraint, force, and anxiety developed by the individual, as a response to the external action of certain agents – physical, chemical, mental, biological – represented by morpho-functional modification, of endocrine nature, in most cases”<sup>19</sup>.

According to other authors, stress represents “an intense lack of balance perceived subjectively by the individual, between the requirements of the body and the individual possibilities of coping”<sup>20</sup>. Based on its type, stress can be individual or collective – physical, mental, biological. In Mihai Golu’s definition, mental stress occurs as “a state of tension, strain, discomfort, caused by affecting factors, with negative significance, a state of frustration of certain needs, desires or aspirations.”<sup>21</sup>

It is noteworthy that one and the same stressor does not cause mental stress to all the individuals and does not cause the same level mental stress

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<sup>17</sup> Daniela Marinescu, quoted op., p. 26.

<sup>18</sup> <http://ro.wikipedia.org/wiki/Stres>, accessed on March 5<sup>th</sup> 2015.

<sup>19</sup> Hans Selye, *The Nature of Stress*, International Institute of Stress, University of Montreal, Canada, [www.icnr.com/articles/the-nature-of-stress.html](http://www.icnr.com/articles/the-nature-of-stress.html) și <http://www.stress.org/stress-effects>, accessed on March 5<sup>th</sup> 2015.

<sup>20</sup> <http://ro.wikipedia.org/wiki/Stres>, accessed on March 5<sup>th</sup> 2015.

<sup>21</sup> Ibidem.



to the same individual, each time; instead, its impact depends on the momentary state of the individual and on the significance attributed by the latter to the mental stressor, at the respective moment<sup>22</sup>.

In addition, the doctrine warns that there are two forms of negative stress (distress) and eustress (positive stress, entailing stressor –please stimuli in the environment, pleasant sensations of the individual; it entails pleasant consequences, in most of the cases, of the action of stressors; it entails physical stress)<sup>23</sup>.

The stress confronted today by the people in the societies at the beginning of the 21<sup>st</sup> century (especially in large urban overcrowded areas) *derives from the stress* caused by the model of industrialized societies or by societies in process of industrialization, in which *certain forms of pollution* (demographic, chemical, phonic, electromagnetic, thermal, radioactive, vibration-generated, aesthetic) are directly connected to the negative excessive stress, with direct negative effects on the human body (*as a simple survivor in the intensely industrialized and crowded urban areas*).

*Besides this negative excessive stress permanently exercised on the human body of the “metropolitans”* (people living in large urban settlements), plus the people in industrial or mining cities, confronted with other types of stress and pollution, there are forms of negative excessive stress caused by the workplace pressure, the lack of recreation places (outdoor playgrounds, parks, green areas, lakes, pools and other underwater recreation areas, lack of or insufficient presence of outdoor pools, recovery and relaxation areas, or the high cost of relaxation areas – cost restricting the access to relaxation for the people). There are no strategies at the level of neighbour city halls, in the large cities, at the level of general municipalities, in metropolises or cities under the strong impact of chemical, industrial, phonic pollution or negative

<sup>22</sup> Ibidem.

<sup>23</sup> Ibidem. Hans Selye, *The Nature of Stress*, International Institute of Stress, University of Montreal, Canada, [www.icnr.com/articles/the-nature-of-stress.html](http://www.icnr.com/articles/the-nature-of-stress.html) și <http://www.stress.org/stress-effects>, accessed on March 5<sup>th</sup> 2015.

excessive stress, in order to enable *a concrete exercise of the rights derived from the human right to be protected from the negative excessive stress, mainly because such a right has yet to be defined expressly in the national, regional and international legislation*. It can be observed (as well as the rights connected to or derived from the human right to be protected from stress) *only indirectly, for the time being* (by constitutional, European and international definition of *other human rights*).

Therefore, we note a legal tension *ab initio* between the human right to be protected from stress (which we propose in the present article) and the right to development (by virtue of which, the developing or underdeveloped peoples and states are preoccupied with massive industrialization, at the price of environmental degradation, and with expanding or forming non-environmental cities, with direct effect on the health quality of life of their inhabitants. Instead, we propose an approach of *complementariness* to these two human rights, through the innovative dimension of *eco-development*<sup>24</sup>.

Thus, we consider that the human right to be protected from negative excessive stress and the related rights are *legally defined by default*, in the following articles:

- The human right to life and physical and mental integrity (art. 22/Constitution of Romania; art. 3, 4, 5/Universal Declaration of Human Rights; art. 6/International Covenant on Civil and Political Rights);
- The right to freedom and safety (art. 23/ Constitution of Romania; art. 3.9.10/UDHR; art. 9/International Covenant on Civil and Political Rights);
- Freedom of expressing thoughts and opinions, religious freedom (art. 29 and art. 30/ Constitution of Romania; art. 18, 19/UDHR; art. 18, 19/International Covenant on Civil and

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<sup>24</sup> Although the concept has seen a tumultuous history, being highly contested at first by the developing countries and subsequently by the industrialized countries, we consider that it has not exhausted its meanings and importance. Marie Claude Smouts, Dario Battistella, Pascal Vennesson, *Dictionnaire des relations internationales*, Dalloz, Paris, 2006, pp.128-129.



Political Rights);

- Right to health (art. 33/ Constitution of Romania; art. 25/UDHR; art. 12/International Covenant on Civil and Political Rights);

- Right to human dignity (art. 1/UDHR; art. 1, paragraph 3/ Constitution of Romania; art. 10/International Covenant on Civil and Political Rights);

- Right to labour and measures of social protection from the state and the ban of forced labour (art. 38 and 39/ Constitution of Romania; art. 22, 23, 25/UDHR; art. 6, 9, 10/International Covenant on Civil and Political Rights);

- Right to a healthy and clean environment (art. 33<sup>1</sup>/ Constitution of Romania; Stockholm Declaration/1972, following the UN Conference on the environment; art. 24/African Charter of Human and People's Rights; Additional Protocol of November 14<sup>th</sup> 1998 on economic, social and cultural rights to the American Convention on Human Rights, Rio Declaration/1992, Agenda 21, Johannesburg Declaration regarding sustainable development/2002; art. 37/EU Charter of Fundamental Rights)<sup>25</sup>;

- Right to peace and security (art. 28/ UDHR; art. 26/Charter of Economic Rights and Obligations of States<sup>26</sup>);

- Right to a decent life standard, right to pension, paid maternity leave, medical assistance in state medical units, unemployment aid and other forms of public or private social insurances, stipulated by law (art. 43/Constitution of Romania; art. 25/UDHR);

- Right to special protection of children, youth, disabled people (art. 45, 46/ Constitution of Romania; art. 10/International Covenant on Civil and Political Rights);

- Right of a person injured by a public authority to receive recognition of the claimed right or the legitimate interest, cancellation of the damaging deed and compensation for the damage; right to justice (art. 48/Constitution of Romania; art. 41/EU Charter of Fundamental Rights; art.

<sup>25</sup> For additional information, see Daniela Marinescu, quoted op., pp. 384-386.

<sup>26</sup> Resolution adopted by UNGA, 3281(XXIX), 12 December 1974, www.un-documents.net, accesef on 20.04.2015.

10/UDHR; art. 14/International Covenant on Civil and Political Rights);

- Non-discrimination and equality of citizens before the law (art. 16/Constitution of Romania; art. 7/UDHR; art. 2/International Covenant on Civil and Political Rights);

- Right to form own personality and access to culture (against cultural, moral and phonic pollution) (art. 1 paragraph 3/Constitution of Romania; art. 27/UDHR; art. 15/International Covenant on Civil and Political Rights).

## **2. Rights Derived from or Connected to the Human Right to be Protected from Negative Excessive Stress**

The human right to be protected from negative excessive stress *includes in its legal content a series of derived or connected rights* designed to improve the quality of life parameters, the satisfaction, wellbeing and happiness parameters for the 21st century human being, according to *the civilization standards of this new century, specific to the intensely urbanized postmodern world*. Thus, we can mention here *outlining new human rights or adjusting already defined rights or rights in process of being defined in the international law doctrine*, granting concrete legal content to the human right to be protected from negative excessive stress:

- *The right to an environmental, sustainable city* (the concept of “eco-city” gained more and more ground against the already obsolete model of “industrialized city”, without green areas, without a concept of ecological development of the workspaces, of the urban areas designed for offices, recreation areas and inhabited areas)<sup>27</sup>;

<sup>27</sup> Already defined in international documents, such as *The Habitat Agenda. Istanbul Declaration on Human Settlements*, www.un.org/ga/Istanbul+5/declaration.htm, accessed on April 17<sup>th</sup> 2015; in addition, the document with the title “World Charter of the Right to the City”, launched at the Americans’ Social Forum /Quito, July 2004, and at the World Urban Forum/Barcelona, September 2004. In Europe, several dozens of the European cities adopted in the European Charter for the Safeguarding of Human Rights in the City, in Saint-Denis/France, in May 2000. See Christophe Golay; Melik Ozden, *The Right to Housing. A Fundamental Right Affirmed by the UN and Recognized in Regional Treaties and Numerous National Constitutions*, www.cetim.ch/en/publications\_logement.php, accessed on December 11<sup>th</sup> 2014.

- *The human right to a tranquil life* (right derived from the fundamental freedom of the human being to be protected from fear, atrocity and terror – freedom from fear)<sup>28</sup>;

- *The human right to enjoy a green area in the heart of the city and the neighbourhood*;

- *The right to sport and physical maintenance* (which, in terms of labour, means that the employer's obligations include adding gyms and giving the employees free time to exercise and relax, in order to maintain a good physical and mental state of health, required for the development of their work);

- *The right to free physical and mental medical assistance, in the workplace, in schools and universities in units where deprivation of freedom is applied, in order to manage and counter negative excessive stress*;

- *The right to constant improvement of living conditions* (exceeding the legal content of the right to a decent living);

- *The human right to durable prosperity*;

- *The right to continue to improve labour conditions and pastime conditions*;

- *The human right to relaxation* (derived from the right to rest of the worker, but with a much more extended legal scope than the one belonging to the field of labour law);

- *Right to happiness*<sup>29</sup>;

- *Right of the worker to benefit from relaxed labour conditions, to a respectful non-discriminatory labour environment, which is dignified, pleasant and relaxing* (avoiding physical and intellectual strain, exploitation of human labour force, strain in a tense, hostile environment, inadequate for the development of activities, an environment of permanent harassment, lack of respect, minimization or exclusion). It is a right of the human being living according to the standards of the 21st century global society, which develops from the harmonization of several already existing rights

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<sup>28</sup> Preamble, paragraph 2/Universal Declaration of Human Rights.

<sup>29</sup> Right considered by the doctrine as being part of the 4<sup>th</sup> category of human rights. See Irina Moroianu Zlătescu, *Human Rights. A dynamic and evolving process*, Pro Universitaria Publishing House, Bucharest, 2015, pp. 455-457.

(the human right to rest, the right to professional promotion, the right to labour, interdiction of forced labour, human dignity, the right to a just remuneration for the labour performed, the right to develop one's personality<sup>30</sup>, the right to a decent living, the right to happiness, the right to a dwelling, the right to health, the right to life etc.).

- The human right to physical and mental harmonious development (right connected to the human right to freely develop his/her personality<sup>31</sup>, but which introduces the complex and unexplored legal concept of "*harmonious development*" in the field of human rights).

### **3. Stress from the Perspective of Human Security**

The negative effects of stress on the *health state* of the human being (construed as *a state of harmony* with oneself, with nature, society, the other people)<sup>32</sup> are disorders (lacks of balance) of mental or physical nature, such as: depression, heart attacks, hypertension, weakening of the immune system, colds, herpes, other disorders, rheumatoid arthritis and others<sup>33</sup>.

Stress can cause a wide variety of effects to the individual emotions, on the human behaviour and on the general state of the human body. The effects of physical stress, but especially of the mental stress (up to intellectual strain, chronic fatigue – encountered in people who work a lot, sometimes to the point of exhaustion)<sup>34</sup>, are also

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<sup>30</sup> "Free development of human personality" being defined among the *supreme values* of the Romanian state, in art. 1, paragraph 3/Constitution of Romania

<sup>31</sup> Dumitru Mazilu, quoted op. p. 109, Article 1, paragraph 3/Constitution of Romania (free development of human personality; art. 32<sup>1</sup>, paragraph 2/Constitution of Romania, expressly defining "the freedom of the person to develop his/her spirituality and to have access to the values of national and universal value" cannot be restricted.

<sup>32</sup> Irina Moroianu Zlătescu, Octavian Popescu, *Mediul și sănătatea*, quoted op., pp. 17-18.

<sup>33</sup> Louise Taylor, Betty Bryant, *Ki.Energia vitală*, transl. Mihai-Dan Pavelescu, Teora Publishing House, Bucharest, 2008, pp.148-149. In addition, [www.stress.org/stress-effects](http://www.stress.org/stress-effects), accessed on March 5<sup>th</sup> 2015.

<sup>34</sup> Louise Taylor, Betty Bryant, quoted op., pp. 148-149.



caused by a certain life style, specific to large cities in the 21<sup>st</sup> century: inactiveness, excessive computer or office work, lack of physical exercise and rest, lack of free time and entertainment, failure to connect to nature, supporting forms of daily urban pollution (phonic, light, moral, cultural, physical, chemical, biological etc.); thus, for today's (urbanized) human being, living in constant stress has become a life style.

The response to stress, according to the doctrine, is a natural manner of protecting the human body; however, beyond certain parameters, stress triggers negative effects on the health state of the human body, which can no longer cope with these challenges, causing damages in the family relations, work relations and quality of personal life, in general<sup>35</sup>.

Concerning the response to stress, it entails several steps<sup>36</sup>:

- acknowledging the stress symptoms, identifying the level of stress and the manner in which the stressors affect the quality of day-to-day life of the individual, his/her work and activities, his/her perception as a fulfilled person and his/her relations with the surrounding people. It is important to note that each person reacts in a different manner to a stressor and that each person experiments stress in a different manner, given the unique personality of each of us;

- knowing one's own limit of stress supportability. The perception of stress differs from one person to the other; some even looking for a life filled with adrenaline and a lifestyle with high parameters of stress; identification of the personal ability to recognize stress and to tolerate it (depending on factors such as a general individual view on life, personal relations, emotional intelligence etc.);

- developing the personal ability to manage personal emotions, to develop knowledge in identifying the general and specific stress symptoms, taking control in the management of stress (by developing trust in one's own person, in the personal ability to influence events, in persevering in developing personal qualities of optimism, humour, calm, controlling situations generating general and individual stress<sup>37</sup>).

There is no universally valid solution for the management of stress, or a unique response to stress, according to the doctrine<sup>38</sup>, and it is recommended that the person focus on the things and aspects maintaining him/her calm and in control over the situation. Practicing stress management becomes, in the context of globalization, urbanization and occurrence of a multiple range of unconventional challenges against the 21st century society, which is necessary, both at individual and at institutional level, applied by public authorities, in the military life or civil society.

In addition, at international and regional level, it is necessary to adopt declarations, conventions, pacts to identify the general and specific stressors, for the person of the 21st century global society, for the special categories of subjects confronted with situations generating negative excessive stress (militaries on war fronts, defenders of human rights, UN officers, OSCE observers etc., people confronted with situations of great severity, natural or manmade calamities and others).

These legal documents should identify a series of measures for the management of stress, to acknowledge stress as a form of polluting the urbanized global society of the 21st century and

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<sup>35</sup> For additional information, see Melinda Smith, Robert Segal, Jeanne Segal, February 2015, [www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm](http://www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm), accessed on March 5<sup>th</sup> 2015.

<sup>36</sup> Idem. Also see [www.stress.org/stress-effects](http://www.stress.org/stress-effects), accessed on March 5<sup>th</sup> 2015; [www.humanrights.gov.au/quick-guide/12100](http://www.humanrights.gov.au/quick-guide/12100), accessed on March 2<sup>nd</sup> 2015. [www.surveymonkey.com/s/humanrightsimpact](http://www.surveymonkey.com/s/humanrightsimpact), accessed on March 5<sup>th</sup> 2015; [www.humanrights.gov.au/quick-guide/12100](http://www.humanrights.gov.au/quick-guide/12100), accessed on March 2<sup>nd</sup> 2015.

<sup>37</sup> [www.actionforhappiness.org](http://www.actionforhappiness.org), accessed on March 5<sup>th</sup> 2015; [www.nhs.uk/Conditions/stress-anxiety-depression/Pages/reduce-stress.aspx](http://www.nhs.uk/Conditions/stress-anxiety-depression/Pages/reduce-stress.aspx), accessed on March 5<sup>th</sup> 2015.

<sup>38</sup> For additional information, see Melinda Smith, Robert Segal, Jeanne Segal, February 2015, [www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm](http://www.helpguide.org/articles/stress/stress-symptoms-causes-and-effects.htm), accessed on March 5<sup>th</sup> 2015. In addition, see Hans Selye, *The Nature of Stress*, International Institute of Stress, University of Montreal, Canada, [www.icnr.com/articles/the-nature-of-stress.html](http://www.icnr.com/articles/the-nature-of-stress.html) and <http://www.stress.org/stress-effects>, accessed on March 5<sup>th</sup> 2015.





to damage the benefit of the human rights (in particular, the right to life, to health, happiness, professional promotion at work, rest, free time, freedom, decent living conditions etc.).

*At international level, Romania should propose an international day of countering and managing stress*, failure of states to acknowledge stress at legal and political level leading to the damaging of other human rights presented above, in essence and in terms of exercise.

In the same manner, protection should be ensured for the quality of life, satisfaction of life, happiness of the person, *at regional level* (at the level of the EU, Council of Europe, OSCE and other regional organizations with competences in the field of human rights protection), in legal documents especially designed for this subject (e.g. *a Pact of the states to counter individual stress and to define the human right to be protected from stress*).

In this context, we must also remind that there is a position *at the UN*, with the title «*Stress Counsellor/UN Department of Safety & Security*», UNDP, designed to handle issues such as: management of mental health issues, depression, going through a crisis, burnout, cyberbullying, issues of management of conflicts, problems related to “approaching a colleague in need”, as well as problems of trauma and emergencies. In addition, there is (for example, at the UN Office from Nairobi) *a Counselling Service on stress management problems, for the UN personnel*, in the area, provided by “a professionally qualified psychologist”<sup>39</sup>.

The Office for Personnel Counselling<sup>40</sup> in Nairobi also handles what is coined as “critical

*incident stress*<sup>41</sup>”, defined as a form of stress occurring when an individual undergoes an event generating an extreme, unusual emotional reaction, resulting in a crisis, which requires intervention.”

In addition, the Office activities for the UN Counsellor of personnel are presented – a variety of training programs and seminars, focusing especially on issues related to the management of stress, crises and difficult situations<sup>42</sup>. The office intends to be “a first point of contact” for the UN personnel members, for the latter to receive, in conditions of confidentiality, support, aid, professional assistance, while undergoing a crisis or personal concern, when improving the health state and regaining the personal state of wellbeing.

Concerning the human right to be protected from stress, we consider that, *at constitutional level*, it should be defined in a distinct article of a revised Constitution, brought to the level of requirements and challenges of the 21<sup>st</sup> century society, *as a fundamental human right* (of the postmodern person, living in the life conditions specific to the 21<sup>st</sup> century), besides to *the recognition of stress as a form of pollution specific to the 21<sup>st</sup> century* and subsequently (through adequate legislation), outlining measures, strategies and policies for the management of stress.

In our opinion, the concept of *stress management* must be *introduced in the extended concept of “durable development” and of “human development”* and it must be taken over by bodies such as PNUD, to be detailed from the legal standpoint, in adequate reports.

*A national stress management strategy* would entail acknowledging the general stressors, the stressors specific to the activity of individuals (special categories of people who, given the specific nature of their activity or profession, or on account of certain situations, are confronted with **negative excessive stress**), methods to manage

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<sup>39</sup> Called “*The United Nations Staff Stress Management Counselling Service Office*”, localized in Nairobi. This UN site also provides brief situational stress management solutions, for the UN personnel and for the aid of children caught in disasters (“dealing with trauma and emergencies”). [www.medical.unon.org/counsellor/php](http://www.medical.unon.org/counsellor/php), accessed on March 5<sup>th</sup> 2015.

<sup>40</sup> <http://www.un.org/staffdevelopment>, accessed on March 5<sup>th</sup> 2015.

<sup>41</sup> <http://www.medical.unon.org/docs>, accessed on March 5<sup>th</sup> 2015.

<sup>42</sup> Programs such as: Mission Readiness & Wellness Programme, Stress Management Series etc. <http://www.un.org/staffdevelopment>, accessed on March 5<sup>th</sup> 2015.



the general stress and the specific-professional or specific-situational stress, in order to ensure at the same time the real exercise of the human rights for the people in the jurisdiction of the respective state or under the competence of the respective authorities (central or local). These strategies also entail *setting up offices for the management of stress* in the workplace, in military units, in military theatres, hospitals, education units; *setup of departments for the study at central and local level of the type and level of stress – in the respective areas – as well as setup at the Ministry of Health and National Defence of a national department dedicated to treating stress as a form of aggression – individual or collective, induced remotely, intentionally and systematically, or personal, situational etc.)*

Considering stress to be a form of aggression against the human body (individual, as well as collective form), *of an unconventional type*, which can be used intentionally, systematically, from the individual level to the level of large collectivities, in order to generate physical and/or mental vulnerability of the said individuals/collectivities, means an adequate acceptance of the challenges – many of them unconventional – of the 21<sup>st</sup> century world.

From this perspective, that of the unconventional character of the aggressions suffered by states, peoples and individuals, in the 21<sup>st</sup> century, we must also discuss and handle the negative excessive stress. Thus, the problem called in the doctrine “*trauma and resilience in human rights*”<sup>43</sup> promises to become the source of new 4<sup>th</sup> generation human rights, besides the right to happiness, “human rights and business law/social corporate responsibility” and other rights in this generation<sup>44</sup>.

### Certain Conclusions

In our opinion, the human right to be protected from negative excessive stress is a new right, included in the 4<sup>th</sup> generation of human rights,

<sup>43</sup> [www.frontlinedefenders.org/wellbeing/ideas](http://www.frontlinedefenders.org/wellbeing/ideas), accessed on March 5<sup>th</sup> 2015.

<sup>44</sup> Irina Moroianu Zlătescu, *Human Rights*, quoted op., pp. 452-457.

with close connections to the solidarity rights (3<sup>rd</sup> generation), as well as with the 1<sup>st</sup> and 2<sup>nd</sup> generation rights. It is an innovation we propose in the human rights doctrine, considering the forms of non-conventional aggression, which can regard both the individual and large collectivities, up to the level of peoples, developed in the 21<sup>st</sup> century, due to the switch to a globalized strongly urbanized society. In this context, there is a permanent need to improve and consolidate the body of human rights, since it is clear that they must be improved up to the level of effective protection of the postmodern human being, in the 21<sup>st</sup> century and they must no longer be allowed to remain obsolete, specific to the 20<sup>th</sup> century.

Regarding the rights of certain special categories of people to be protected from stress, we would propose granting special attention to these rights, in the regional and international documents signed by the states, as follows:

- Militaries, advocates for the human rights (UN), journalists in the conflict areas must have special rights, acknowledged in international conventions, introducing special mechanisms to ensure the exercise of these rights;

- Defining a right of the militaries in the conflict areas *to medical assistance specialized in countering/management of stress*;

- *Right of the militaries to be compensated for their activity in conditions of negative excessive stress and for the damages caused to their rights* (to life, physical integrity, mental integrity), on account of concrete, negative excessive stress-generating situations, confronted on the war front;

- *Right of militaries to receive a bonus to the salary, for the activities in conditions of negative excessive stress*;

- Right of the militaries to act in situations of negative excessive, *with international, regional and local protection* (from the local and/or international authorities, under the direct effect of the universality and primordial nature of the human rights), *adequate for countering the situation that generates negative excessive stress*;



- *Right of the populations and individuals in conflict areas, in areas damaged by natural or manmade disasters, by wars, armed conflicts, to receive free special medical assistance (international, regional and local), to receive free assistance, in order to counter/manage negative excessive stress;*

- Defining and detailing the legal content of a right of prisoners to benefit from *dignified* conditions in imprisonment, *which do not increase the negative excessive stress parameters* (thus amounting to a de facto doubling of their punishment);

- *Defining a prisoners' right to relaxation, tranquillity and happiness* (a series of special rights, which must be acknowledged at international and national level, within the parameters of the 21st century society, in the effort to identify and counter new forms of inhuman, degrading or torture treatment).

*All these special rights, connected to or derived from the human right to be protected from negative excessive stress must be receive a prompt and adequate legal definition, both at the international level of human rights protection and at national, regional and infra-national levels of legal protection.*

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23. <http://ro.wikipedia.org/wiki/Stres>, accessed on March 5<sup>th</sup> 2015.

24. [www.un.org/ga/Istanbul+5/declaration.htm](http://www.un.org/ga/Istanbul+5/declaration.htm), accessed on April 17<sup>th</sup> 2015.

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# KEY FACTORS DRIVING PERSONNEL DOWNSIZING IN MULTINATIONAL MILITARY ORGANIZATIONS

*Ilksen GORKEM, PhD\**

*Pilar PAZOS, PhD\*\**

*Resit UNAL, PhD\*\*\**

*Adrian GHEORGHE, PhD\*\*\*\**

*Gokay SURSAL, PhD\*\*\*\*\**

*Although downsizing has long been a topic of research in traditional organizations, there are very few studies of this phenomenon in military contexts. As a result, we have little understanding of the key factors that drive personnel downsizing in military settings. This study contributes to our understanding of key factors that drive personnel downsizing in military organizations and whether those factors may differ across NATO nations' cultural clusters. The theoretical framework for this study was built from studies in non-military contexts and adapted to fit the military environment.*

*Time series cross-sectional dynamic panel data from 28 NATO countries over 23 years were gathered. A series of analyses using the Arellano-Bond Generalized Method of Moments (GMM) method were conducted in two steps. For the first step, an inspection of the key factors that drive personnel downsizing was performed using Stata 'xtabond' estimation. For the second step, an analysis across NATO nations' cultural clusters was conducted.*

**Keywords:** *Personnel downsizing, military restructuring, cultural clusters, NATO, time series.*

## Introduction

Changes in the external environment of military organizations drive the need for organizational change and often result in downsizing<sup>1</sup>. A number of NATO nations' armed forces have been downsizing for several decades. For instance, Canada's number of active military personnel went from 88,000 in 1989 to 69,950 in 1999 and 65,700 by the end of 2010. France's numbers were reduced from 554,000 in 1989 to 332,250 in 2011<sup>2</sup>. It appears that there are certain

<sup>1</sup> James W. D. S, *Relationships between airline employee morale, motivation, and leadership communication during organizational restructuring: A correlation study*, University of Phoenix, Ann Arbor, MI. available at <http://proxy.lib.odu.edu/login?url=http://search.proquest.com/> ProQuest Dissertations & Theses Full Text database, 2008.

<sup>2</sup> *The World Bank, Armed forces personnel*, available at <http://data.worldbank.org/indicator/MS.MIL.TOTL.P1>, 2014.

*\* Ilksen GORKEM, Lt.Col, PhD, Researcher, Old Dominion University (ODU)/Norfolk, VA/USA, [ilksengorkem@gmail.com](mailto:ilksengorkem@gmail.com)*

*\*\* Pilar PAZOS, PhD, Assoc.Prof., ODU/Norfolk, VA/USA, [MPazosLa@odu.edu](mailto:MPazosLa@odu.edu)*

*\*\*\* Resit UNAL, PhD, Prof., ODU/Norfolk, VA/USA, [runal@odu.edu](mailto:runal@odu.edu)*

*\*\*\*\* Adrian GHEORGHE, PhD, Prof., ODU/Norfolk, VA/USA, [agheorgh@odu.edu](mailto:agheorgh@odu.edu)*

*\*\*\*\*\* Gokay SURSAL, PhD, Norfolk, VA/USA, [Gsursal@gmail.com](mailto:Gsursal@gmail.com)*



key factors that drive personnel downsizing in NATO nations' military organizations.

## 1. Literature review

### ***Definition of Downsizing***

Downsizing is sometimes used as a synonym for decline, but they are two different terms. Downsizing is typically aimed at improving efficiency while a decline typically is naturally occurring and has no aim of improving efficiency. Decline is the result of a combination of organizational factors and environment<sup>3</sup>.

### ***Military Downsizing***

With the understanding that military organizations can become more effective and productive, it is possible for downsizing to be implemented in almost the same manner in military as in non-military organizations. Downsizing approaches are thought to increase performance by reducing functions, changing the work process, or reducing the hierarchical levels of a military organization<sup>4</sup>. Military downsizing is largely driven by changes in the security environment<sup>5</sup>.

Military downsizing is a strategic redesign to adapt to a changing security environment aimed at increasing readiness for foreseeable missions, optimizing the entire organization and increasing performance levels by reducing personnel numbers, bases, facilities, or by enhancing the hierarchical organization, the work process, equipment and weapon systems<sup>6</sup>.

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<sup>3</sup>S. J. Freeman, K. S. Cameron, "Organizational Downsizing: A Convergence and Reorientation Framework" in *Organization Science*, 4(1), 10-29, 1993.

<sup>4</sup>K. S. Cameron, "Strategies for successful organizational downsizing" in *Human Resource Management*, 33(2), 1994, pp. 189-211; R.-L. DeWitt, "The structural consequences of downsizing" in *Organization Science*, 4(1), 30-40., 1993; S. J. Freeman, K. S. Cameron, "Organizational Downsizing: A Convergence and Reorientation Framework" in *Organization Science*, 4(1), 10-29, 1993.

<sup>5</sup>E. Thomchick, R. R. Young, W. L. Grenoble, "The impact of downsizing on import departments", in *Transportation Journal* (American Society of Transportation & Logistics Inc), 38(4), 26-35, 1999.

<sup>6</sup>Cameron, K. S., "Strategies for successful organizational

### ***Key Factors That Drive Personnel Downsizing***

#### ***Chief of General Staff***

The personality traits and backgrounds of CEOs have been found to influence downsizing in personnel numbers<sup>7</sup>. It has been found that downsizing rates were higher when CEOs had financial backgrounds than when they did not<sup>8</sup>. Thus, the Chief of General Staff could be a key factor that drives personnel downsizing in military organizations.

#### ***National Military Strategy Directive***

The National Military Strategy Directive is linked to the national defense strategy and the national security strategy<sup>9</sup>. Any political guidance coming through that connection initiates action in real life during the years of implementation. Based on these examples, the National Military Strategy Directive could be another key factor.

#### ***Military Expenditure***

In most cases, a military organization's total personnel number, force structure, equipment and weapon systems directly affect military expenditure. For instance, in 1994, the United States estimated a savings of 40% in military expenditure by reducing over 30% of its

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downsizing" in *Human Resource Management*, 33(2), 1994, pp. 189-211; K. S. Cameron, S. J. Freeman, *The downsizing of an army organization: An investigation of downsizing strategies, processes and outcomes*, Alexandria, VA: School of Business Administration, 1994, pp. 1-63; W. F. Cascio, "Downsizing: What do we know? What have we learned?", in *The Executive*, 7(1), 95-104, 1993; J. T. McCUNE, R. W. Beatty, R. V. Montagno, "Downsizing: Practices in manufacturing firms", in *Human Resource Management*, 27(2), 145-161, 1988; W. Mc Kinley, C. M Sanchez, A.G. Schick, Organizational downsizing: Constraining, Cloning, Learning, in *Academy of Management Executive*, 9(3), 32-42, 1995; E. Thomchick, R. R. Young, W. L. Grenoble, "The impact of downsizing on import departments", in *Transportation Journal* (American Society of Transportation & Logistics Inc), 38(4), 26-35, 1999.

<sup>7</sup>M. Useem, *Executive defense: Shareholder power and corporate reorganization*, Cambridge, MA: Harvard University Press, 1993.

<sup>8</sup>A. Budros, "A conceptual framework for analyzing why organizations downsize", in *Organization Science*, 10 (1), 1999, pp. 69-82.

<sup>9</sup>J. Hesterman, in *National Military Strategy*, 2014, available at <http://www.comw.org/qdr/archive.html>.

**Table no. 1:** Cultural Clusters of NATO Countries<sup>10</sup>

Cultural Clusters	NATO Countries (28 Nations)
1 / Anglo	USA, Canada, United Kingdom (3 nations)
2 / Germanic Europe	Germany, Netherlands (2 nations)
3 / Latin Europe	Italy, Spain, Portugal, France (4 nations)
4 / Eastern Europe	Poland, Greece, Hungary, Albania, Slovenia (5 nations)
5 / Middle East	Turkey (1 nation)
6 / Nordic Europe	Denmark (1 nation)
Not listed	<i>Belgium, Bulgaria, Croatia, Czech Republic, Estonia, Iceland, Latvia, Lithuania, Luxemburg, Norway, Romania, Slovak Republic (12 nations)</i>

total active military personnel<sup>11</sup>. In military organizations, a reduction in the defense budget generally results in downsizing. The United States' military expenditures fell from 5.32% to 3.02% of its Gross Domestic Product (GDP) from 1990 through 1999. During that same period, the total number of active duty personnel was reduced by 1.38% (from 2,180,000 to 1,575,000 personnel)<sup>12</sup>. Thus, military expenditures are thought to be a key factor driving personnel downsizing in military organizations.

#### *Other Possible Key Factors*

There might be several other factors that drive personnel downsizing such as imitating, doctrine, structure/hierarchy of a military organization, personnel and leadership training, modernization, new warfare systems and information technologies, close/install/enhance facilities or bases, but this study attempts to determine only the most influential factors.

#### **Cultural Clusters of NATO Countries**

A cultural cluster is a group of countries with similar cultural characteristics<sup>13</sup>. In this study,

<sup>10</sup> J. S Chhokar, F. C Brodbeck., R. J., House, "Culture and leadership, across the world: the GLOBE book of in-depth studies of 25 societies" in *Journal of Applied Christian Leadership*, 3(2), 2009, pp. 57-63.

<sup>11</sup> K. S. Cameron, "Strategic organizational downsizing: An extreme case" in *Research in Organizational Behaviour*, 20, 1998, pp. 185-229.

<sup>12</sup> *The World Bank. Armed forces personnel*, available at <http://data.worldbank.org/indicator/MS.MIL.TOTL.P1>, 2014.

<sup>13</sup> R. J. House, P. J. Hanges, M. Javidan P. W. Dorfman, V. Gupta, *Culture, Leadership and Organizations: The GLOBE study of 62 societies*, Thousand Oaks, CA: SAGE

28 NATO countries are grouped according to their cultural clusters as displayed in *Table no 1*. Cultural clusters' groups are named Cultural Cluster 1, 2, 3, 4, 5, and 6.

The Global Leadership and Organizational Effectiveness (GLOBE) project studied 62 nations worldwide<sup>14</sup>. A later study examined 25 of those 62 nations<sup>15</sup>. The GLOBE project investigates the cultures by nine dimensions including "power distance, performance orientation, uncertainty avoidance, assertiveness, humane orientation, future orientation, in-group collectivism, institutional collectivism and gender egalitarianism"<sup>16</sup>. However, none of the two aforementioned studies included 12 NATO nations, namely Belgium, Bulgaria, Croatia, Czech Republic, Estonia, Iceland, Latvia, Lithuania, Luxemburg, Norway, Romania, and the Slovak Republic.

Publications, 2004; A.RUSSO, *The sustainable cultural cluster*, Paper presented at the The 40th Congress Of The European Regional Science Association, Barcelona, Spain, available at <http://www-sre.wu-wien.ac.at/ersa/>, 2000.

<sup>14</sup> R. J House, P. J. Hanges, M. Javidan, P. W. Dorfman, V. Gupta, *Culture, Leadership and Organizations: The GLOBE study of 62 societies*, Thousand Oaks, CA: SAGE Publications, 2004.

<sup>15</sup> J. S Chhokar, F. C. Brodbeck, R. J. House, "Culture and leadership, across the world: the GLOBE book of in-depth studies of 25 societies" in *Journal of Applied Christian Leadership*, 3(2), 2009, pp. 57-63.

<sup>16</sup> J. S Chhokar, F. C. Brodbeck, R. J. House, "Culture and leadership, across the world: the GLOBE book of in-depth studies of 25 societies" in *Journal of Applied Christian Leadership*, 3(2), 2009, p. 58.



### ***Modified Cultural Clusters***

Further research was conducted to determine whether the aforementioned 12 nations can be associated to the existing cultural clusters as defined in prior research. Denmark, Finland, Iceland, Norway, and Sweden are considered Nordic countries<sup>17</sup>. The Nordic Council was founded by Denmark, Sweden, Norway and Iceland in 1952<sup>18</sup>. Therefore, Iceland and Norway are considered members of the Nordic Europe cluster in this study. Poland, Russia, Ukraine, Latvia, and Slovenia are considered Central-eastern European countries<sup>19</sup>. Another study found that Bulgaria, the Czech Republic, Greece, Hungary, and former Yugoslavia are considered eastern countries<sup>20</sup>. Yet another found that Croatia and Slovenia are former Yugoslav states<sup>21</sup>. In addition, the Romanian culture falls under the Central and Eastern Europe cultural cluster<sup>22</sup>. The Slovak Republic (Slovakia) has been identified with cultural characteristics similar to the Czech Republic and Hungary<sup>23</sup>. Therefore, Bulgaria, Latvia, the Czech Republic, Croatia and Romania are grouped under the Eastern Europe cluster in this study.

The Baltic countries are Latvia, Lithuania, and Estonia, which have very similar cultures<sup>24</sup>. Latvia is in the Eastern Europe cluster. Therefore, Latvia and Estonia are considered a part of the Eastern Europe cluster. According to a cultural connection study on social media usage behaviors, the Netherlands and Belgium are in the same

cultural cluster<sup>25</sup>. Hence, Belgium is considered a part of the Germanic Europe cluster. Taking into account its shared political, religious, and demographic history, as well as other similarities between Luxemburg and in particular Belgium – such as the same language, traditions, and economic structure – and in view of a common set of broad values, it can be stated that Luxemburg belongs to the same cultural cluster as Germany, the Netherlands, and Belgium<sup>26</sup>. Modified cultural clusters of NATO countries are shown in *Table no. 2*.

## **2. Methodology**

### ***Research Design and Methodology***

The purpose and goal of this study were accomplished by applying a quantitative research design, by collecting data that helped to investigate key factors that drive personnel downsizing in military organizations and by determining whether those factors differ across NATO nations' cultural clusters.

### ***Research Questions***

The research questions that the study addresses were:

Question 1. What are the key factors that drive personnel downsizing in military organizations of NATO nations?

Question 2. Do those key factors differ across NATO nations' cultural clusters?

### ***Hypotheses in Alternative Form***

H<sub>A</sub>1: Military Expenditure (% of GDP) has a statistically significant relationship with downsizing.

H<sub>A</sub>2: Turnover in the Chief of General Staff has a statistically significant relationship with downsizing.

H<sub>A</sub>3: Modification of the National Military Strategy Directive has a statistically significant relationship with downsizing.

H<sub>A</sub>4: The relationship between Military Expenditure (% of GDP) and personnel

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<sup>17</sup> J. S Chhokar, F. C. Brodbeck, R. J. House, R. J., *Culture and leadership across the world*, New York, NY: Lawrence Erlbaum Associates Taylor & Francis Group, 2013.

<sup>18</sup> "The Nordic countries", in *Randburg*, available at <http://www.randburg.is/history.html>, 2014.

<sup>19</sup> G. Bakacsi, T. Sandor, K. Andras, I. Viktor, "Eastern European cluster: Tradition and transition" in *Journal of World Business*, 37, 2002.

<sup>20</sup> Ibidem.

<sup>21</sup> J. C. Laurent, *The seven states of the Former Yugoslavia: An evaluation*, available at <http://www.iwp.edu/>.

<sup>22</sup> "Romanian culture and leadership management essay", available at <http://www.ukessays.com/essays/>.

<sup>23</sup> "The influence of foreign cultures on the slovaks history essay", November, 2013, available at <http://www.ukessays.com/essays/>.

<sup>24</sup> E. V. Bunkse, W. Tietze, "Baltic peoples, Baltic culture, and Europe: Introduction" in *GeoJournal*, 33(1), 5-7, 1994.

<sup>25</sup> P. L. Kohl, "Shared social fields: Evolutionary convergence in prehistory and contemporary practice", in *American Anthropologist*, 110(4), 495-506, 2008.

<sup>26</sup> "Luxembourg presents itself", in *Luxembourg throughout the centuries*, e-Luxembourg, 2007, available at <http://www.luxembourg.public.lu/>.





Table no. 2: Modified Cultural Clusters of NATO Countries<sup>27</sup>

Cultural Clusters	NATO Countries (28 Nations)
1 / Anglo	USA, Canada, United Kingdom (3 nations)
2 / Germanic Europe	Germany, Netherlands, <i>Belgium, Luxemburg</i> (4 nations)
3 / Latin Europe	Italy, Spain, Portugal, France (4 nations)
4 / Eastern Europe	Poland, Greece, Hungary, Albania, Slovenia, <i>Czech Republic, Latvia, Croatia, Bulgaria, Estonia, Lithuania, Romania, Slovak Republic</i> (13)
5 / Middle East	Turkey (1 nation)
6 / Nordic Europe	Denmark, <i>Iceland, Norway</i> (3 nations)

*Italics indicate nations that were not originally part of the cultural clusters in the Globe research<sup>28</sup>*

downsizing differs across NATO nations' cultural clusters.

H<sub>A</sub>5: The relationship between the Chief of General Staff and personnel downsizing differs across NATO nations' cultural clusters.

H<sub>A</sub>6: The relationship between the National Military Strategy Directive and personnel downsizing differs across NATO nations' cultural clusters.

### **Population and Rationale**

This research considers the overall multinational military organization (NATO) as the unit of analysis and NATO as the unit of generalization.

A variety of data sources were used for data triangulation. Data related to the Total Active Duty Personnel number and Military Expenditure (% of GDP) was mainly collected from the World Bank and SIPRI<sup>29</sup>. Data related to the Chief of General Staff was collected from NATO's official site and the NATO nations' armed forces official

webpages. Data related to the National Military Strategy Directive (NMSD) was collected from the National Liaison Representatives (NLRs) of 28 NATO nations working collaboratively with Headquarters Supreme Allied Commander Transformation (HQ SACT), NATO's official site, and the NATO nations' armed forces official webpages. Data related to NATO nations' cultural clusters was mainly collected from the NATO nations' official webpages and the GLOBE study<sup>30</sup>.

### **Time Series Cross-Sectional Analysis Technique**

Time series cross-sectional analysis technique has been previously suggested as appropriate for longitudinal research designs that involve repeated measures taken on the same subject overtime at regular intervals<sup>31</sup>. Time series cross-sectional dynamic panel data analysis provides mathematically rigorous theory and techniques. Each nation can be considered a different panel, and collectively the data set can be considered panel data. Since data was collected over 23 years for each NATO country, it constitutes time series dynamic data.

<sup>27</sup> Chhokar J. S.; Brodbeck F. C.; House R. J., *Cultural Clusters of NATO Countries*, 2009.

<sup>28</sup> R. J House, P. J. Hanges, M. Javidan, P. W. Dorfman, V. Gupta, *Culture, Leadership and Organizations: The GLOBE study of 62 societies*, Thousand Oaks, CA: SAGE Publications, 2004.

<sup>29</sup> SIPRI, *Military expenditure*, available at <http://www.sipri.org/yearbook/2013/03>, 2013; SIPRI, *Defining military expenditure, Armaments, disarmament and international security solna*, available at <http://www.sipri.org/research/armaments/milex/>, 2014; The World Bank, *Armed forces personnel*, available at <http://data.worldbank.org/indicator/MS.MIL.TOTL.P1>, 2014.

<sup>30</sup> J. S. Chhokar; F. C. Brodbeck; R. J. House, *Cultural Clusters of NATO Countries*, 2009; R. J House, P. J. Hanges, M. Javidan, P. W. Dorfman, V. Gupta, *Culture, Leadership and Organizations: The GLOBE study of 62 societies*, Thousand Oaks, CA: SAGE Publications, 2004.

<sup>31</sup> N. Salkind, *Time-series study. Encyclopedia of research design*, Thousand Oaks, CA: SAGE Publications, 2010.



### ***Arellano-Bond Generalized Method of Moments Model***

The Arellano-Bond Generalized Method of Moments (GMM) model is a regression model used to analyze the causal relationship between dependent and independent variables that conform with time series cross-sectional dynamic panel data. This statistical method can model both unit heterogeneity (between-subject) and time heterogeneity (within-subject)<sup>32</sup>. The Arellano-Bond GMM model suggests using a lag of two or more periods as instruments of estimation in order to gain efficiency<sup>33</sup>. The Arellano-Bond GMM model assumes that there is no serial correlation in the idiosyncratic errors but that they are dependent over time periods<sup>34</sup>.

One of the advantages of using Arellano-Bond GMM in the time series cross-sectional dynamic panel data was that the model increased the degrees of freedom due to the higher amount of individual observations. Another advantage was that the model reduced collinearity among explanatory variables, which provided a better estimation precision. Another advantage of the model was the enhancement of estimator precision by eliminating time-variant individual covariates. Yet another advantage was that due to the model characteristics, it was possible to investigate heterogeneity by gathering information about previous time periods<sup>35</sup>.

<sup>32</sup> J. Alvarez, M. Arellano, *The time series and cross-section asymptotics of dynamic panel data estimators*, Madrid, Spain: CEMFI, 1998.

<sup>33</sup> M. Arellano, *Modelling optimal instrumental variables for dynamic panel data models*, Madrid, Spain: CEMFI, 2003; T. Bilgicir, K. Jedidi, D. R. Lehmann, S. A. Neslin, "The long-term effect of multichannel usage on sales", in *Customer Needs and Solutions*, 2(1), 41-56, 2014.

<sup>34</sup> M. Arellano, S. Bond, "Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations" in *Review of Economic Studies*, no. 58, 1991, pp. 277-297.

<sup>35</sup> F. Ejzykowicz, *The impact of adherence to guidelines on the health care expenditures of COPD patients*, University of Southern California, Ann Arbor, MI, ProQuest Dissertations & Theses Full Text database, 2013, available at <http://proxy.lib.odu.edu/login?url=http://search.proquest.com/>; C. Hsiao, *Analysis of panel data* Cambridge, UK: Cambridge University Press, 2nd ed. Vol. 34, 2003; J. M. Wooldridge, *Econometric analysis of cross section and panel data*, London, UK: MIT Press, 2010.

### ***Variables, Indicators and Metrics***

There are one dependent and three independent variables in this study. The Total Active Duty Personnel number was considered the dependent variable. Military Expenditure, the Chief of General Staff, and the National Military Strategy Directive were considered independent variables. Year and Nation were considered dummy variables. Cultural Clusters was considered a categorical variable.

#### ***Dependent Variable, Indicator and Metric***

##### ***Total Active Duty Personnel***

The Total Active Duty Personnel number was considered the dependent variable. Any reduction in Total Active Duty Personnel quantity was considered an indicator of personnel downsizing, whereas an increase was considered upsizing. Total Active Duty Personnel is to show numbers as they were for each NATO nations' armed forces (e.g. 1,520,100).

#### ***Independent Variables, Indicators and Metrics***

##### ***Military Expenditure (% of GDP)***

This variable represents the annual military expenditure of a NATO nation as the percentage of its GDP (Gross Domestic Product). In the data set, military expenditure is to show 14 decimal places (e.g. 1.56352950795231%).

##### ***Chief of General Staff***

This variable represents the number of years the Chief of General Staff of a NATO nation was on duty. In other words, it is tenure of the Chief of General Staff. The first year of tenure was coded as '1', the second year was coded as '2', and the third year was coded as '3' and so on (e.g. 1, 2, 3, 4, 5, 6).

##### ***National Military Strategy Directive (NMSD)***

This variable represents the number of years the National Military Strategy Directive of a NATO nation was in effect. In other words, it is NMSD maturity. The first year of NMSD maturity was coded as '1'; the second year was coded as '2' and so on (e.g. 1, 2, 3, 4, 5, 6).

#### ***Dummy Variables, Indicators and Metrics***

***Year:*** The years from 1990 through 2012 were



considered. Years were coded by their number.

*Nation:* 28 NATO nations were considered. Nations were coded by their name.

### ***Categorical Variable, Indicator and Metric***

*Cultural Clusters:* Cultural clusters were considered a categorical variable. The groups of Cultural Clusters were coded as group '1, 2, 3, 4, 5, and 6 (Table 2).

### ***Measurement***

The data set was created in accordance with the Stata tool requirements. The Arellano-Bond Generalized Method of Moments (GMM) model in robust type was performed in the Stata by importing data from the data set. The relationship between Total Active Duty Personnel and Military Expenditure (% of GDP), tenure of the Chief of General Staff and the National Military Strategy Directive maturity was tested in accordance with the hypotheses.

If the slope value of the change in Total Active Duty Personnel number is negative, there is personnel downsizing; if the change is positive, it is considered upsizing. When there is active military personnel downsizing and the slope of Military Expenditure is negative, it means there is a positive correlation between them. When more personnel downsizing occurs as tenure of the Chief of General Staff increases, it means there is a positive correlation between them. When military personnel downsizing increases as NMSD maturity does, it means there is a positive correlation between them.

In the overall analyses (Step 1 analyses), data derived from 28 NATO nations was used for calculations. When the results were statistically significant, it indicated that the related independent variable is a key factor that drives personnel downsizing in military organizations.

### ***Measurement for the Cultural Clusters Analyses***

In the Cultural Clusters analyses (Step 2 analyses), the same analyses were conducted within each of the Cultural Clusters. Each cluster's results were compared to the output of the overall

analyses (Step 1 analyses), and the difference was investigated to determine whether related key factors differed across Cultural Clusters.

## **3. Analyses and findings**

### ***Data Description***

The unit of analyses was nations' military organizations. Data was collected for 23 years (1990-2012) annually, with the size of the panels [ $N=28$  (28 NATO nations) and  $T=23$  (23 years)]. Each data point (each line in the data set) in this study represented Nation, Year, Total Active Duty Personnel number, Military Expenditure (% of GDP), turnover in the Chief of General Staff, and modification of the National Military Strategy Directive. Except for grouping and converging some data points under Cultural Clusters 1, 2, 3, 4, 5, and 6, the same data set was used in the Cultural Cluster analyses.

If this study was strongly balanced, it could have a total of 2576 observations; however, due to a lack of data, the number of total observations was 2423 (only 153 missing, 5.94%). The number of observations for Year was 644 (28 nations \* 23 years), for the Total Active Duty Personnel number it was 621, for Military Expenditure (% of GDP) it was 608, for turnover in the Chief of General Staff it was 622, and for modification of the National Military Strategy Directive it was 572. The reasons behind the missing data were that some NATO nations gained independence after 1990, so there were no established armed forces or no recorded data for some nations for a certain period of time.

### **Conclusions of the study**

The purpose of this study was to investigate key factors that drive personnel downsizing in military organizations of NATO nations and whether those factors differ across NATO nations' cultural clusters. This chapter provides details on the conclusions of the study.

To answer the research questions, a series of analyses were conducted in two steps. For the first step (Step 1: overall analyses), an inspection



of the key factors that drive personnel downsizing in NATO nations’ military organizations was analyzed. For the second step (Step 2: cultural clusters analyses), an analysis was performed to determine if the key factors differ across NATO nations’ cultural clusters.

**Step 1: Overall Analyses**

Table 3 depicts the results of Step 1: Overall Analyses.

politics have directly contributed to downsizing decisions of the Post-Cold War period<sup>37</sup>. In 1994, the United States estimated a savings of 40% in military expenditure by reducing over 30% of its total active military personnel<sup>38</sup>. The United States’ military expenditure fell from 5.59% to 3.02% of its GDP (Gross Domestic Product) from 1989 through 1999. The total number of active duty personnel declined by 2.97% (from 2,240,000 to 1,575,000 personnel) during the

**Table no. 3:** Step 1: Overall Analyses Results

H <sub>A</sub> #	Hypothesis in Alternative Form	Coefficient Value and Inference	Summary of Findings and Inference
H <sub>A1</sub>	Military Expenditure (% of GDP) has a statistically significant relationship with personnel downsizing.	(-6967.631) One percent change in Military Expenditure (% of GDP) drives personnel <b>downsizing</b> of 6967 military personnel.	( <i>p</i> = 0.102) Not significant with a negative value <i>Not Supported</i>
H <sub>A2</sub>	Turnover in Chief of General Staff has a statistically significant relationship with personnel downsizing.	(-2306.316) A one-year of additional tenure of Chief of General Staff drives personnel <b>downsizing</b> of 2306 military personnel.	( <i>p</i> = 0.039) <b>Significant with a negative value</b> <i>Supported</i>
H <sub>A3</sub>	Modification of the National Military Strategy Directive has a statistically significant relationship with personnel downsizing.	(1679.392) A one-year of additional maturity in the National Military Strategy Directive drives personnel <b>upsizing</b> of 1679 military personnel.	( <i>p</i> = 0.032) <b>Significant with a positive value</b> <i>Supported</i>

Turnover in the Chief of General Staff was found to be significant, and one year of additional tenure of the Chief of General Staff proved to drive 2306 Active Duty Personnel downsizing. This finding showed that turnover in the Chief of General Staff is a key factor that drives personnel downsizing in 28 NATO nations’ military organizations. Modification of the National Military Strategy Directive was found to be significant; however, one year of additional maturity in the National Military Strategy Directive proved to be driving personnel upsizing of 1679. Hence, it was determined that NMSD is not a factor that drives personnel downsizing in military organizations.

Scholars provide evidence of a relationship between an organization’s budget and personnel downsizing<sup>36</sup>. According to Gardner, “budgets and

same period<sup>39</sup>. Likewise, daily newspapers generally relate military personnel downsizing with cuts in military expenditure<sup>40</sup>. Even though

support organization, Gonzaga University, Ann Arbor, MI. available at [http://proxy.lib.odu.edu/login?url=http://search.proquest.com/ProQuestDissertations & Theses Full Text database, 2005](http://proxy.lib.odu.edu/login?url=http://search.proquest.com/ProQuestDissertations&ThesesFullTextdatabase,2005).

<sup>37</sup> N. J. Gardner, *Consequences of military downsizing: An analysis of similarities and differences in the United States Army between the post World War I period (1919-1939) and the post Cold War period (1988-1999)*, California State University, Ann Arbor, MI. available at [http://proxy.lib.odu.edu/login?url=http://search.proquest.com/ProQuestDissertations & Theses Full Text database, 2002](http://proxy.lib.odu.edu/login?url=http://search.proquest.com/ProQuestDissertations&ThesesFullTextdatabase,2002), p. 41.

<sup>38</sup> K. S. Cameron, “Strategic organizational downsizing: An extreme case” in *Research in Organizational Behaviour*, 20, 1998, pp.185-229.

<sup>39</sup> *The World Bank. Armed forces personnel*, available at <http://data.worldbank.org/indicator/MS.MIL.TOTL.P1>, 2014.

<sup>40</sup> H.Chu, “As Europe cuts military budgets, some worry about its clout” in *Los Angeles Times*, p. 4., available at <http://proxy.lib.odu.edu/>, 2010, December 5; S. Thom,



the aforementioned facts point to military expenditure as one of the key factors that drive personnel downsizing in military organizations, when it comes to NATO nations, the findings of this study disagree. Military Expenditure (% of GDP-Gross Domestic Product) was found to be statistically non-significant as a factor driving personnel downsizing in the study. Contrary to general belief and local findings, when 28 NATO nations were considered altogether, Military Expenditure was not a factor that drives downsizing in military organizations.

All those findings lead the researcher to investigate whether Step 1's results differ across NATO nations' cultural clusters.

**Step 2: Cultural Clusters Analyses**

Table 4 depicts the results of Step 2: Cultural Clusters Analyses.

In Cultural Cluster 3 (*Latin Europe*),

downsizing. On the contrary, it proved to be driving personnel upsizing. This was more likely to happen if Military Expenditure was rising in Cultural Cluster 3, and the Total Active Duty Personnel number was either rising in parallel or not changing significantly. In Cultural Cluster 2 (Germanic Europe), turnover in the Chief of General Staff was found to be significant, and one year of additional tenure of the Chief of General Staff drives 7379 active duty personnel downsizing. This finding showed that turnover in the Chief of General Staff was a key factor that drives personnel downsizing in Cultural Cluster 2 (Germanic Europe) nations' military organizations. It yielded similar results to Step 1: Overall analyses and means that the Chief of General Staff as a key factor in 28 NATO nations did not differ in the Germanic Europe cluster. In Cultural Cluster 1 (Anglo), the National Military Strategy Directive had a strong relationship

**Table no. 4:** Step 2: Cultural Clusters Analyses Results (CulturalCls 1-4)

H <sub>A</sub> #	Hypothesis in Alternative Form	Coefficient Value and Inference	Summary of Findings and Inference
H <sub>A</sub> 4	The relationship between Military Expenditure (% of GDP) and personnel downsizing differs across NATO nations' cultural clusters.	<i>In Cultural Cluster 3 (Latin Europe)</i> (35330.57) One percent change in Military Expenditure (% of GDP) drives personnel <b>upsizing</b> of 35330 military personnel.	( <i>p</i> = 0.037) <b>Significant with a positive value</b> <i>Supported</i>
H <sub>A</sub> 5	The relationship between Chief of General Staff and personnel downsizing differs across NATO nations' cultural clusters.	<i>In Cultural Cluster 2 (Germanic Europe)</i> (-7379.043) A one-year of additional tenure of Chief of General Staff drives personnel <b>downsizing</b> of 7379 military personnel.	( <i>p</i> = 0.005) <b>Significant with a negative value</b> <i>Not Supported</i> ( <i>Similar result to 28 NATO nations</i> )
H <sub>A</sub> 6	The relationship between the National Military Strategy Directive and personnel downsizing differs across NATO nations' cultural clusters.	<i>In Cultural Cluster 1 (Anglo)</i> (3078.029) A one-year of additional maturity in the National Military Strategy Directive drives personnel <b>upsizing</b> of 3078 military personnel.	( <i>p</i> = 0.03) <b>Significant with a positive value</b> <i>Supported</i>

Military Expenditure had a strong relationship with the Total Active Duty Personnel number; however, it did not prove to drive personnel

with the Total Active Duty Personnel number; however, it did not drive personnel downsizing. On the contrary, it proved to drive personnel upsizing. In Cultural Cluster 4 (Eastern Europe), there was no significant *p* value for any of the independent variables. One potential explanation for the non-existent relationship between the Total Active Duty Personnel number and the

D. Christopher, "Army, marines targeted for downsizing; gates' plan indicates Obama looking for broad budget cuts", *New York Times*, p. 4., January 7, available at <http://proxy.lib.odu.edu/>; T. W. Times-Herald, "President should halt military downsizing. The Washington", *Times-Herald*, p. 1, May 2, available at <http://proxy.lib.odu.edu/>.



independent variables was that Cultural Cluster 4 was either missing some identifying data or was not homogenous as a different culture. This cluster might have some more sub-clusters, or some of the nations might be members of other Cultural Clusters. In order to make an estimation of Cultural Clusters 5 and 6, ANOVA and Tukey’s Honest Significant Difference tests were performed and displayed in Table no 5. The aim was to find unknown parameters by comparing known parameters.

It was found that there was no significant difference between Cultural Cluster 5 (Middle East) and 1 (Anglo) with respect to values of modification of the National Military Strategy Directive and the Total Active Duty Personnel number. However, it did not necessarily mean that the relationship between the National Military Strategy Directive and the Total Active Duty Personnel number was almost identical in Cultural Cluster 1 (Anglo) and 5 (Middle East).

The Total Active Duty Personnel trend was very similar for Cultural Cluster 6 (Nordic Europe) and Cultural Cluster 4 (Eastern Europe). Cultural Cluster 6 was a divergent cluster because its Military Expenditure trend was similar to Cluster 3 (Latin Europe), its trend for turnover in the Chief of General Staff was similar to

Cluster 2 (Germanic Europe), and its trend for modification of the National Military Strategy Directive was similar to Cluster 1 (Anglo).

However, Cultural Cluster 6 Total Active Duty Personnel trend was found to be different from Cultural Clusters 2, 3, 1 and 5. The Cultural Cluster 6 Military Expenditure trend differs from Cultural Clusters 1, 4, and 5. It was anticipated that the Cultural Cluster 6 Chief of General Staff trend would differ from Cultural Clusters 3, 4, and 1. It was predicted that the Cultural Cluster 6 National Military Strategy Directive trend would differ from Cultural Cluster 4.

Most likely, those results were related to the amount of missing data. It was not possible to estimate which Cultural Cluster was characteristically similar to Cultural Cluster 6. In conclusion, Cultural Cluster 6 test results proved that Cultural Cluster 6 was different from 28 NATO nations.

There was enough evidence to conclude that the relationship between Military Expenditure, turnover in the Chief of General Staff, modification of the National Military Strategy Directive, and personnel downsizing differs across NATO nations’ cultural clusters.

**Table no. 5:** Overall ANOVA & Tukey’s HSD Test Results for Clusters 5 and 6

	Cluster Number & Significant Variable	ANOVA F	ANOVA Prob > F	Tukey’s HSD-test	Differs
Cultural Cluster 5 (Middle East)	# 3 & Military Expenditure	26.54**	0.0001	9.1552**	Yes
	# 2 & Chief of General Staff	7.58**	0.0610	4.9927**	Yes
	# 1 & National Military Strategy Directive	0.82	0.3644	1.7178	No
	# 1 & Total Active Duty Personnel	0.93	0.3341	1.8128	No
Cultural Cluster 6 (Nordic Europe)	# 3 & Military Expenditure	2.90	0.0893	2.2790	No
	# 2 & Chief of General Staff	0.16	0.6893	0.5089	No
	# 1 & National Military Strategy Directive	0.84	0.3600	1.1821	No
	# 4 & Total Active Duty Personnel	2.64	0.1047	18.6951	No

*Note. \*\* Related variable is significantly different.*



### General Conclusion

It was found that turnover in the Chief of General Staff was a key factor that drives personnel downsizing in 28 NATO nations' armed forces. In contrast, modification of the National Military Strategy Directive was a key factor that drives personnel upsizing. On the other hand, reduction in Military Expenditure was generally declared the reason for military personnel downsizing. In this study, it was found that Military Expenditure was not a factor that drives Active Duty Personnel downsizing; instead, the Chief of General Staff was found to be the key player. Military expenditure might have been used as justification for the Chief of General Staff's downsizing decisions.

This study showed that the main player in Active Duty Personnel downsizing implementation is the Chief of General Staff, neither Military Expenditure, nor NMSD. Even though Military Expenditure can drive a military organization to downsize, the Chief of General Staff can delay or cancel the actual implementation. Even though there seems to be a sufficient Military Budget to hold all Active Duty Personnel for a certain period of time, a Chief of General Staff may also decide to downsize for other reasons. However, all these inferences are subject to change when applied to different Cultural Clusters of NATO nations. The analysis results of Step 1 of this study looked at the overall NATO group as a whole.

However, in one culture, when a Chief of General Staff directs his command to perform personnel downsizing of the Total Active Duty Personnel number, his / her staff may obey the rules and work very hard to meet the commander's order as soon as possible. Inversely, in another culture, the staff may request to know the rationale of the personnel downsizing order before implementing the directive. The staff may request to work on possible risks, mitigations, and opportunities. In the end, they may either support or not support the Chief of General Staff's decision by providing detailed rationale. To conclude, it was found that the key factors that drive personnel downsizing differ across NATO nations' cultural clusters.

The National Military Strategy Directive might reflect the ideal defense power that a

nation desires to have; however, the Chief of General Staff, when faced with the realities of defense planning with limited resources including personnel and budget, might act differently. That might be the reason why NMSD is a key factor in triggering personnel upsizing rather than downsizing. The Chief of General Staff might need to find a rationale for personnel downsizing decisions in order not to be blamed for layoffs and might use a declining military budget as justification for personnel downsizing. In agreement with this view, Scott<sup>41</sup> anticipated that some firms might use poor economic conditions as a rationale for closing unsatisfactory divisions of the organization.

In this study, it was found that Chief of General Staff is the key factor driving personnel downsizing in military organizations of NATO nations. On the contrary, the news frequently declares that due to the declining military budget the armed forces are performing layoffs. For instance, according to an article in the *Los Angeles Times*, "There's little doubt that the spending cuts will downgrade armies and arsenals, which could cause a strain on the United States"<sup>42</sup>. According to an article from Agence Presse, "America will need to scale back the size of its armed forces in the face of deep budget cuts"<sup>43</sup>. Yet another article from the *New York Times* expresses that "The White House has told the Pentagon to squeeze that growth in the next five years, Gates said, reducing by \$78 billion the amount available for the Pentagon, as a result of this the Army is expected in 2015 to begin cutting its active-duty troop levels by 27,000, and the Marine Corps by up to 20,000"<sup>44</sup>.

However, in this study it is found that Military Expenditure is not a significant factor that drives personnel downsizing in military organizations.

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<sup>41</sup> B. G. Scott, *Factors affecting shareholder returns for large firms announcing downsizing actions*, Saint Louis University, Ann Arbor, MI. available at <http://proxy.lib.odu.edu/login?url=http://search.proquest.com/ProQuestDissertations&ThesesFullTextdatabase,1998>.

<sup>42</sup> H.Chu, "As Europe cuts military budgets, some worry about its clout" in *Los Angeles Times*, p. 4, available at <http://proxy.lib.odu.edu/>, 2010, December 5, p. 1.

<sup>43</sup> "Budget cuts will mean leaner US force: Hagel", in *Agence France-Presse*, available at <http://proxy.lib.odu.edu/>

<sup>44</sup> S. Thom, D. Christopher, "Army, marines targeted for downsizing; gates' plan indicates Obama looking for broad budget cuts", *New York Times*, p. 4., January 7, available at <http://proxy.lib.odu.edu/>



Therefore, the findings in this study support the idea of using a decline in Military Expenditure as a justification for personnel downsizing.

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# SUICIDE TERROR ATTACKS IN AFRICA

János BESENYŐ, PhD\*

*The number of the suicide attempts increased dramatically in Africa after the Arab Spring and the following Islamist push. Nowadays, we can consider Nigeria, Somalia and Mali as the most dangerous areas in North Africa.*

*The main objectives of the different terrorist-groups are various most of the times. Ones oppose foreign presence, others fight for absoluteness of Islam. Certain groups continue their rivalry with each other or against governmental forces for growing their authority. The suicide terror act, the tool for fulfilling their objectives increased alarmingly in every case.*

*The questions that the current article tries to answer are what kind of tendencies could be observed after 2011 from this point of view, what is the motivation of the perpetrator and what kind of common and different characteristics could be defined among the single terrorist acts.*

**Keywords:** *suicide terror attack, Africa, Boko Haram, Taliban, al-Shabaab, Egypt, Afghanistan, Nigeria.*

## 1. What makes a terror attack suicidal?

First of all, we have to make the difference between the terms *terrorism* and *suicide terror attack*. The main aim of the terrorism is evoking intimidation. That is the reason why we can correlate it with such actions that intend to cause death or serious bodily harm to civilians or non-combatants. However, it is observable in the majority of the cases of suicide terror attack that suicide bombing does not necessarily target non-

combatants. There is an ongoing debate about the line between them. Several experts suggest terrorism is a tactic. They see it like a tool with which the perpetrators can bring pressure to bear for executing their aims. They keep the suicide attempt as the most abhorrent manifestation of it. If we were to define the latter, suicide terror attack is an act where there is no odd for the perpetrator to return alive.<sup>1</sup>

## 2. Weapons and methods

If we study the used weapons and methods globally, we can settle that the perpetrators applied various tools when they committed suicide attacks. The most commonly used procedure was the activation of explosive belt on the assassin's body, as well as a charge, hidden in the satchel or in the suitcase, as it was the case several times in Africa. This type of attempt happened in the Nigerian city, Potiskum, in November 2014. One activist of Boko Haram, dressed like a student, entered in a school assembly where he blew himself. The suicide bomber killed 46 students and injured 79 others.<sup>2</sup> The more recent "trend" is when the perpetrator kills their victim by high rate of fire small arms and then blows himself. This sort of attempt could result in more casualties. This was the way of the attack in Pakistan that recently evoked huge reactions worldwide. The

<sup>1</sup> Ami Pedahzur, *Suicide Terrorism*, Wiley, 2004.

<sup>2</sup> Nigeria School blast in Potiskum kills dozens, <http://www.bbc.com/news/world-africa-29985252>, accessed on 11.06. 2015.

\* Colonel János BESENYŐ, PhD is Lecturer with "Wekerle Sandor" Business College and works with the Hungarian Defence Forces, Training and Doctrine Center as Head of Doctrine and Conception development Group. E-mail: [besenyo.janos@gmail.com](mailto:besenyo.janos@gmail.com)



Taliban killed 141 persons, among them 132 children between 12 and 16 years,<sup>3</sup> and the same type of attack was executed in Nigeria against the famous Kano Mosque.<sup>4</sup> Also, it occurred frequently that the explosives were activated in a car, as well as in a van, against bigger or defended targets, for growing the number of potential casualties. It also happened in the attack against Saudi Prince Muhammed bin Nayef in 2009, when the perpetrator used the methods of drug-smugglers and hid the explosive inside his body.<sup>5</sup>

Another preferred method of the terrorist act is using vehicles as weapons. In this case, to get certain devices does not involve special trouble. It is a relatively easy way to steal a bicycle, a car or a ship and use it as an armament. This was proved by the attacks against the Somali President Hassan Sheikh Mohamoud<sup>6</sup> and Defense Minister Yusuf Mohammad Siad,<sup>7</sup> against innocent civilians who were watching the World Cup in the Nigerian city Damaturu<sup>8</sup>, and against USS Cole.<sup>9</sup>

<sup>3</sup> \*\*\*, "Pakistan Taliban: Peshawar school attack leaves 141 dead", *BBC News*, 16. December 2014, <http://www.bbc.com/news/world-asia-30491435>, accessed on 18.06.2015.

<sup>4</sup> Zacharias Pieri, "Boko Haram Continues Violent Attacks in Kano and Maiduguri", in *Global Initiative on Civil Society and Conflict*, December 4, 2014, <http://www.usfglobalinitiative.org/boko-haram-continues-violent-attacks-in-kano-and-maiduguri-2/>, accessed on: 06.06.2015; Ross, Will, Boko Haram Kano attack: Loss of life on staggering scale., in *BBC News*, November 30, 2014.

<sup>5</sup> \*\*\*, "Al Qaeda Bombers Learn from Drug Smugglers", *CBS News*, <http://www.cbsnews.com/news/al-qaeda-bombers-learn-from-drug-smugglers/> accessed on 06.06.2015.

<sup>6</sup> \*\*\*, "Al-Shabab claim attack on new Somalia leader", *Al Jazeera*, 13 September 2012, <http://www.aljazeera.com/news/africa/2012/09/201291211132514648.html>, accessed on 11.06.2015.

<sup>7</sup> Bill Roggio, *Suicide bomber targets Somali state minister for defence*, [http://www.longwarjournal.org/archives/2010/02/suicide\\_bomber\\_target\\_5.phpv](http://www.longwarjournal.org/archives/2010/02/suicide_bomber_target_5.phpv), 15, February 2010, accessed on 11.06.2015

<sup>8</sup> \*\*\*, "Nigeria World Cup viewers hit by deadly bomb blast", *BBC News*, 18 June 2014, <http://www.bbc.com/news/world-africa-27896257> accessed on 11.06.2015.

<sup>9</sup> According to certain experts, it is more probable that suicide bombers target commercial ships and wafters like the suicide attack against USS Cole. The reason of this method is that they can calculate more casualties in a smaller and closer space if they can successfully execute the attack.

Throughout time, there were also several instances for hijacking and destroying large vehicles. One activist of Palestinian Islam Jihad seized the drivers' seat of a bus in Israel and drove into a ravine in 1989.<sup>10</sup> However, in the last decades, air transport means are posing threat and challenge. The notorious terror-attack on September 11, 2001 proved, without any doubt, that the terrorist threat endangers not only those on board. The fully fuelled airplanes killed hundreds of people when they crushed into the World Trade Center and exploded. The collapse of the building buried many hundreds of people inside.

### 3. The correlation between religion and suicide terrorism

The religious terrorists are driven by deep-set cultural identities when they commit their act. Their purpose is to demonstrate their cultural dignity in contrast with their enemies and the adverse culture. Contrary to the other terrorists, to gain the sympathy of the local inhabitants or the international community is not their main aim. Rather, they aim to obtain spiritual rewards, so they do not attempt to minimize the number of the casualties. Another important aspect is that they struggle against entire societies, religious communities, cultures or political status-quos while the secularist terrorist-groups mostly fight solely with certain government. The use of violence means a sort of purifying act for them. They can clearly demonstrate their fervor and ideological adherence to this kind of act. Therefore, they use suicide attacks more often than the secular terrorist-groups.<sup>11</sup>

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Moreover, it gains probably bigger attention in the media due to its "singularity" as if perpetrator blows up himself in a crowded Somali market. See John J. Pitney Jr., John-Clark Levin, *Private Anti-Piracy Navies: How Warships for Hire are Changing Maritime Security*, 2013, pp. 207.

<sup>10</sup> Mordecai Dzikansky, Gil Kleiman, Robert Slater, *Terrorist Suicide Bombings: Attack Interdiction, Mitigation, and Response*, 2011, p. 31.

<sup>11</sup> Daniel E. Agbiboa, "The Westgate Terrorist Attack and the Transformation of Al-Shabab: A Global Jihadist Perspective", in *The Davies Papers: Africa Series #3*, March 2014, pp. 5–6.



4. Alarming statistics

The number of suicide bombings carried out by Hezbollah in Lebanon were about 200 worldwide since the early 1980s until the beginning of the

Trade Center played a significant role and gave an example to follow for terrorist-organizations ideologically identified as Al-Qaeda. 85% of all suicide bombings committed until today were carried out by such terrorist organizations which

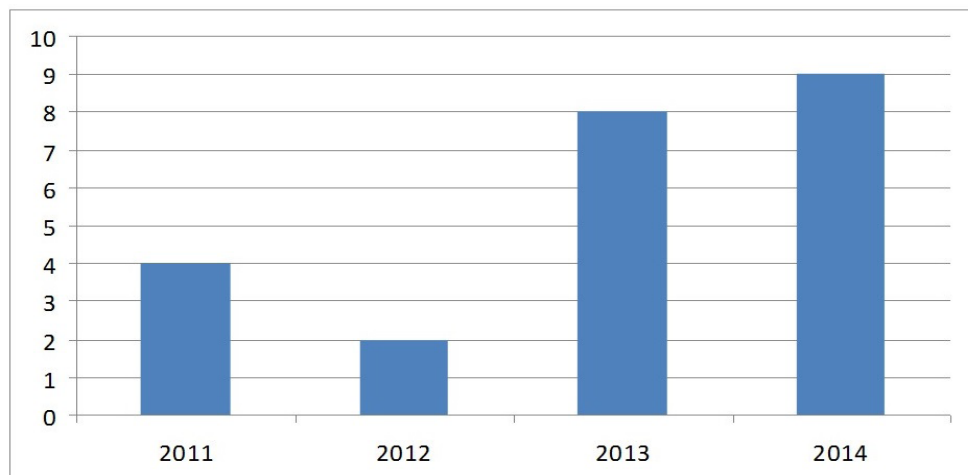
Table no. 1: Suicide attacks in North Africa between January 1, 2011 and July 31, 2014<sup>12</sup>

Number of attacks	23
Number of deaths	126
Number of casualties	489
Deaths per attack	5.5
Casualties per attack	21.3

21st century and it was not motivated by religious reasons in most of the cases. A dramatic change

were connected somehow to Al-Qaeda. In 2013, this ratio was 95%.

Table no 2: The proportion of attacks between January 1, 2011 and July 31, 2014



occurred in this regard since 2000 and more than 3.000 suicide bombings happened during the last 15 years.<sup>13</sup> Without doubt, the attack against World

on Suicide Bombings in 2013, in: *INSS Insight* No. 507, January 14, 2014, <http://www.inss.org.il/uploadImages/systemFiles/No.%20507%20-%20Yotam,%20Einav,%20and%20Yoram%20for%20web.pdf>, accessed on 04.06.2015.

<sup>12</sup> Chicago Project on Security and Terrorism, [http://cpostdata.uchicago.edu/search\\_results\\_new.php](http://cpostdata.uchicago.edu/search_results_new.php), 06.06.2015.

<sup>13</sup> Yotam-Yogev Rosner, Yoram Einav-Schweitzer, A Report

**Table no. 3:** The proportion of attacks and casualties per years<sup>14</sup>

Year	Number of attacks	Number of deaths	Number of casualties	Attacks per deaths
2011	4	45	108	11.3
2012	2	1	26	0.5
2013	8	58	244	7.3
2014	9	22	111	2.4

Although these sort of actions happened seldom in comparison to the other methods used by terrorists, they make more effective impact on the public, due to the greater number of fatalities and their effect on morale. Eighteen countries suffered from the results of these kinds of attacks in 2013: approximately 3.100 people died in 291 actions. That number shows 25% increase in the number of attacks over the previous year. If we only study the African attacks during 2014, then we can state that 42 suicide bombings occurred on the continent till September. These actions claimed a total of 299 lives and injured 525 others.<sup>15</sup>

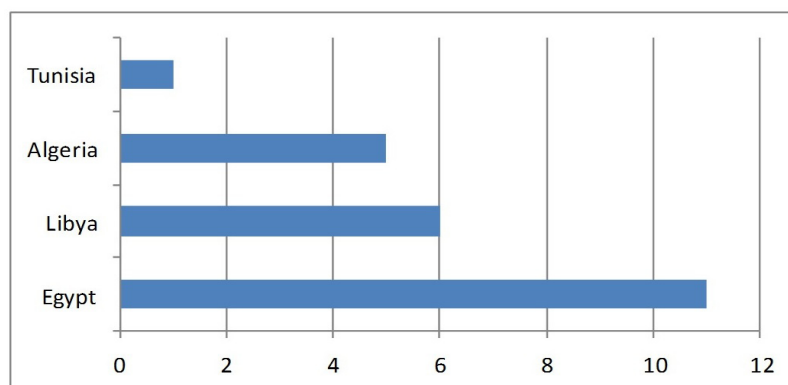
**North-Africa**

We can notice the most warning increase in

resulted in the considerable increase in suicide bombings.

The number of the terrorist activities rose particularly after the oust of President Mohamed Morsi in Egypt.<sup>17</sup> Nowadays, the most dangerous area in the country is the Sinai Peninsula, where four out of six suicide bombings happened until the end of 2013. Suicide attacks also increased significantly in Libya.<sup>18</sup> The first suicide action was committed by a lonely perpetrator in December 2013 and five similar cases occurred during the following six months. At the same time, we have to mention that internal crises do not necessarily result in the rising of these kinds of actions. In relation with this, we can mention the instance of Tunisia in the area. Although here

**Table no. 4:** The proportion of attacks per regions<sup>19</sup>



the Arab states. The political instability emerged after the Arab Spring affected not only economic decline and the rise of migration<sup>16</sup>, but also

are serious security problems in the country, there took place one suicide attack. Nowadays, the

<sup>14</sup> Chicago Project on Security and Terrorism. [http://cpost-data.uchicago.edu/search\\_results\\_new.php](http://cpost-data.uchicago.edu/search_results_new.php), accessed on 06.06. 2015.

<sup>17</sup> János Besenyő, Péter Miletics, *Országismertető Egyiptom, második bővített kiadás*, pp. 241-243.

<sup>15</sup> Chicago Project on Security and Terrorism, [http://cpost-data.uchicago.edu/search\\_results\\_new.php](http://cpost-data.uchicago.edu/search_results_new.php) accessed on 06.06. 2015.

<sup>18</sup> János Besenyő, “Can the Arab Spring present a real threat to Europe?”, *Strategic Impact*, no. 1/2014, pp. 32-44 “Carol I” National Defence University Publishinghouse, Bucharest, <http://cssas.unap.ro/en/periodicals.htm>.

<sup>16</sup> János Besenyő, “Arab tavasz - politikai rendszerváltás az észak-afrikai arab államokban”, *Kül-Világ*, VIII. évfolyam,

<sup>19</sup> *Ibidem*.



Algerian situation seems the most restful: there was no suicide attack during the last two years. clear away from the bigger cities of the state by the end of 2013.<sup>21</sup> However, it carried out 14 attacks

**Table no. 5:** The proportion of attacks and casualties per countries<sup>20</sup>

Country	Number of attacks	Number of deaths	Number of casualties	Attacks per deaths
Algeria	5	21	55	4.2
Egypt	11	80	405	7.3
Libya	6	25	29	4.2
Tunisia	1	0	0	0.0

**Central Africa**

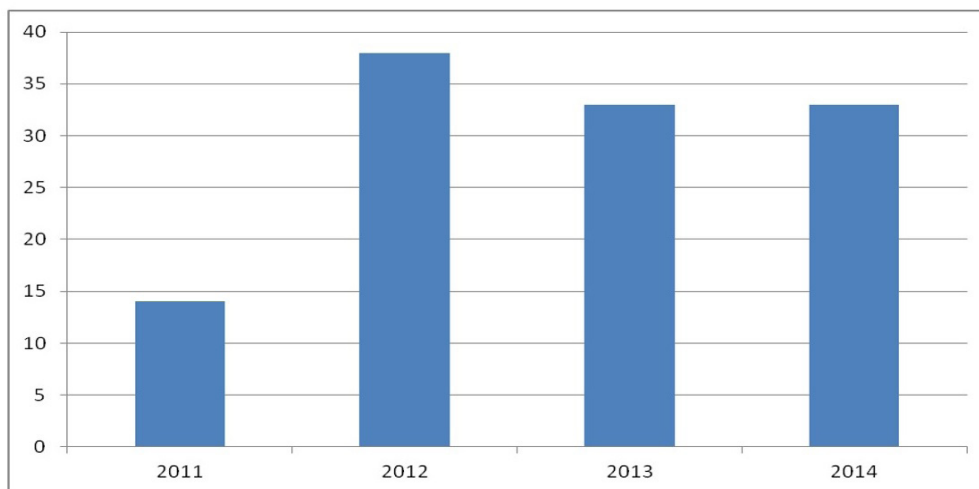
In contrast with the Middle East, the number of suicide attacks has remained relative stable in inner Africa over the previous years. Namely, thirty-three suicide-bombings happened in 2013 which was four less than in 2012. At the same time, it distresses that the number of the attacks reached 33 again until the middle of October, 2014 which was followed other suicide attacks since then.

The most prominent terrorist-organization is al-Shabaab in Somalia which was succeeded to

by itself against foreign troops and government officials until then. Nevertheless, it did not restrain the suicide attempts only to Somali areas and it had also carried out several attacks on the soil of the neighboring countries. Maybe it would be enough to mention the Uganda case in 2010 (76 deaths) or the Kenya-incident executed on a walking-street (approximately 67 deaths).

Mali became another danger zone where managed to prevent the local Jihadist forces' attempt for making a bid by power with French intervention launched in the middle of January,

**Table no. 6:** Attacks per years



<sup>20</sup> Chicago Project on Security and Terrorism. [http://cpst-data.uchicago.edu/search\\_results\\_new.php](http://cpst-data.uchicago.edu/search_results_new.php), accessed on 07.06.2014.

<sup>21</sup> Álmos Péter Kis, János Besenyő, István Resperger, *Országismertető Szomália, második, bővített kiadás*, pp. 60-61.



2013. As revenge, there were fifteen suicide attacks, most of them carried out by the Movement for Oneness and Jihad in West Africa primarily in the district of Gao and Kidal mainly against French and African soldiers.

5. The tendencies in 2014

*Libya*

A suicide bomber blew himself up with his car near one of the check-point of governmental

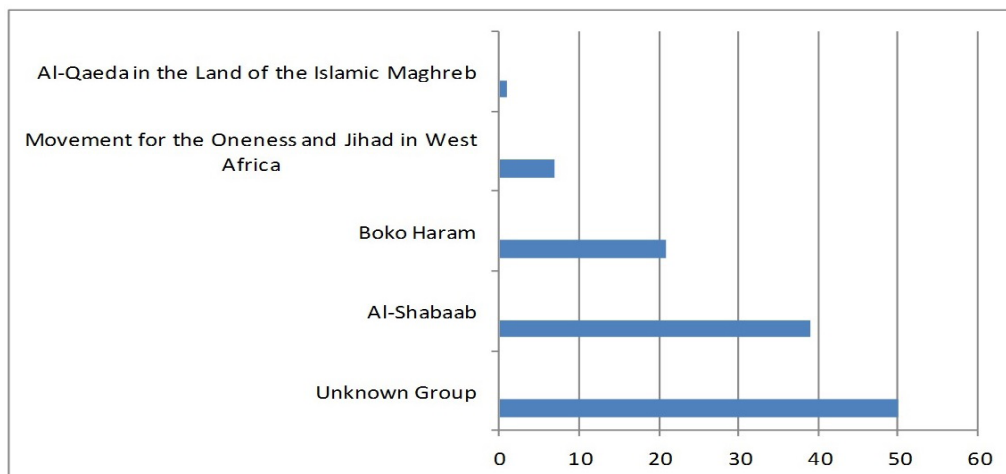
**Table no. 7:** The proportion of attacks and casualties per years<sup>22</sup>

Year	Number of attacks	Number of deaths	Number of casualties	Attacks per deaths
2011	14	238	364	17.0
2012	38	289	815	7.6
2013	33	214	327	6.5
2014	33	277	414	8.4

The terror-organization, like al-Shabaab, also executed assassins in other countries. For instance, it carried out an attack in Nigeria, where Boko Haram could be considered dominant in cooperation with al-Mulathamun Battalion in May 2013. Nevertheless, we can observe at the same time a considerable decline in 2013: namely the 21 attacks of the previous year reduced to three occurrences. However, this decline seems to be provisional. The terror-organization carried out additional attempts on crowded markets, petrol stations or Shia Islam mosques.

forces in Benghazi on October 18, 2014. This incident caused the death of four people and was not a singular event. The Shura Council of Benghazi Revolutionaries claimed responsibility for several previously suicide bombings against Benina International Airport at the beginning of October. The government troops, loyal to General Kalifa Haftar, were the targets on each occasion that continue a fierce struggle against Islamist forces for expelling them from the city. The method is almost similar to the first occurrence in December 2013.

**Table no. 8:** The proportion of attacks per terror-organizations



<sup>22</sup> Ibidem.



The perpetrator approached a checkpoint in a truck full of explosives and activated the detonator when the soldiers checked him. The collateral casualties of the actions are growing due to crowded checkpoint. This was proved by the assassination in Tobruk on November 12 where four soldiers died and twenty-one civilians were injured.

### ***Nigeria***

The Boko Haram uses remarkably various methods for attacking its different targets. The first, and maybe the most important aspect, is that it does not boggle at applying female suicide bombers.<sup>23</sup> These women use the same tools and methods as their Middle Eastern fellows do.<sup>24</sup> The first of these kind of attacks happened in the Eastern Nigerian Gombe on June 8, 2014. It is provable that minimum ten female assassins carried out eight attacks during the elapsed months till the middle of December and killed 93 persons. Among the perpetrators were also females who carried out the bombing on the crowded market in Maiduguri at the end of November.<sup>25</sup>

The method was mostly similar in these cases: the perpetrators arrived to the site by pair in hijab which covered the whole body and then one of them activated the bomb attached to her chest. The other waited at least ten minutes for utilizing the emerged panic morale and then blew up herself in the crowd.

The perpetrators were teenagers in most of the cases. Usually their ages were between 10–18 years. According to non-official information they belonged to those 200 schoolgirls were kidnapped by Boko Haram in April 2014. According to cited sources, the terror-organization managed

to brainwash them and to form human bombs during the elapsed time. This was proved by that information according to which Boko Haram recruited and trained 177 girls under 15 years in cooperation with Hezbollah until the end of July, 2014. 75 of them were ready for action in the provinces of Katsina, Kano and Abuja.<sup>26</sup>

The most preferable targets of the terror-organization are those schools where Qur'anic studies are limited. At least ten attacks against secular educational institutions are ascribed to Boko Haram until now. The bloodiest attack occurred at the beginning of November 2014. The perpetrator, who dressed in student uniform, blew up himself in a college in the city of Potiskum. He killed almost fifty students between the ages of 10 and 20 years.

Prominent religious leaders are also targets if they encourage their community to fight against Boko Haram. The action against Kano Grand Mosque proved to be especially brutal in November: a least 120 people died and approximately 270 were injured. The attack was similar to the method used at the market: the suicide pair blew up themselves among Friday prayers and then four gunmen opened fire into the terrified crowds.

### ***Mali and Somalia***

Suicide attacks targeted basically UN forces deployed in the field in the two African states during 2014. At the same time, we have to remark that there was a prominent difference between the two countries in the number of attempts until the middle of August: three carried out in Mali while 14 occurred in Somalia.

The terrorists attacked military checkpoints or UN convoys when they carried out their duties. Aside from one case, the perpetrator approached

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<sup>23</sup> Farou Chothia, *Boko Haram crisis: Nigeria's female bombers strike*, <http://www.bbc.com/news/world-africa-28657085>, accessed on 11.06.2015.

<sup>24</sup> János Besenyő, "Női terroristák a radikális iszlámban, új biztonsági kihívások a 21. században", *Szakmai Szemle*, 2009. 4. szám, pp. 195-205, <http://www.scribd.com/doc/132830221/Szakmai-Szemle-2009-4>.

<sup>25</sup> BBC News, *Nigeria violence: Two suicide attacks near busy Kano market*, 10 December 2014, <http://www.bbc.com/news/world-africa-30416870>, accessed on 11.07.2014.

<sup>26</sup> "We Have 75 Female Suicide Bombers" – Boko Haram Source in *247UREPORTS*, July 31, 2014, <http://247ureports.com/we-have-75-female-suicide-bombers-boko-haram-source>, accessed on 30.11.2014; Elisabeth Pearson, "Do Nigeria's female suicide attackers point to desperation or high ambition for Boko Haram?" in *African Arguments*, November 20, 2014, <http://africanarguments.org/2014/11/20/do-nigerias-female-suicide-attackers-point-to-desperation-or-high-ambition-for-boko-haram-by-elizabeth-pearson/>, accessed on 30.06.2015.





the field by vehicle every occasion and then he activated the bomb placed in the car.

## 6. Instances

*November 28, 2014. Kano, Nigeria*

Several thousand Sunni Muslim believers got together in the Kano Grand Mosque for Friday preaching on November 28, 2014. The imam had just finished the ceremony when three bombs exploded in the crowd. The first one was activated inside the building while the two others exploded at the gates of the neighboring buildings. At least 120 people died and more than 270 were injured.<sup>27</sup> The first suicide assailant bore down with a bomb, hidden in a car that he drove into the crowd. Another bomb exploded near the palace of Emir of Kano Muhammadu Sanusi II.<sup>28</sup>, the leader regularly visited during his worship. The number of casualties increased when at least three armed men opened fire on the disconcerted crowd after the detonation. The assailants were overpowered by the fury mob when their ammunition run out. They were beaten and burnt to death on the site. The angry mass threw stones at the arriving security forces as well because of the outcry due to the catastrophic internal situation. They showed exactly with their act that they are unable to maintain the state security services by protecting the inhabitants from terrorists. Finally,

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<sup>27</sup> Aminu Abubakar, *Nigerian mosque attack death toll climbs over 100, scores more hurt*, CNN, November 29, 2014, <http://edition.cnn.com/2014/11/28/world/africa/nigeria-violence/>, accessed on 07.06.2015.

<sup>28</sup> The Nigerians reckon the Emir as the second most prominent Islam leader. That is why the attack against him was a contra-productive step from Boko Haram. This was confirmed by the fact that the Emir just took a part on a pilgrimage in Saudi Arabia so he did not locate inside the building. It was assumable that the Emir would pull all of his influence against Islamist extremists following the attack. Anyway, Boko Haram planned an assassin against 83 years old Al Haji Ado Bayero, the predecessor of the Emir. They killed many Nigerian political and spiritual leaders among them the most well-known was the 72 years old Gwoza Emir, Alhaji Idrissa Timta. The reasons of these attacks are the terror-organization regarded the traditional leaders as remains of previous feudal regime and a barrier of establishing Islam Caliphate. They regarded them too corrupt and traitors of Islam because they are in close relation with secular government.

the police had to use tear-gas for entering the Grand Mosques that was previously barricaded by the mass.<sup>29</sup>

Unfortunately, the case was not unexpected. Boko Haram carried out more than ten attacks solely in this city, among which three were unequivocally suicide missions (against a military base, a college and a Catholic church). The reason of the action against the Grand Mosque was squarely the Emir's public call upon resistance against Boko Haram for rescuing the 249 schoolgirls, abducted from the settlement of Chibok. He committed himself more definitely against radicals in a local newspaper in November and he urged the inhabitants to defend themselves effectively against insurgents due to the slow reaction of military forces.<sup>30</sup>

*September 8, 2014. Afgooye, Somalia*

One activist of the al-Shabaab exploded his car, packed with explosives, on 8 September, 2014 when the convoy of the African Union and the Somali government passed near two minibuses. The attack took place at Hawa Abdi area, some 30 kilometers northwest of the capital, near the Mogadishu-Afgooye highway. Following that another suicide assailant on the scene used the emerged chaos and drove into the convoy with his car where he crashed with an armored vehicle and exploded. The attack claimed 12 people's lives; all of them took place in a minibus and 27 persons, including 2 soldiers, were injured. All of the casualties injured or died in the first explosion and the second detonation did not cause further casualties.<sup>31</sup> Abdulaziz Abu Musab,

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<sup>29</sup> Zacharias Pieri, "Boko Haram Continues Violent Attacks in Kano and Maiduguri". in *Global Initiative on Civil Society and Conflict*, December 4, 2014. <http://www.usfglobalinitiative.org/boko-haram-continues-violent-attacks-in-kano-and-maiduguri-2/>, accessed on 07.06.2015; Will Ross, "Boko Haram Kano attack: Loss of life on staggering scale" in *BBC News*, November 30, 2014.

<sup>30</sup> Monica Mark, "Dozens killed in series of bombs at Nigeria mosque", *The Guardian*, 28 November 2014, <http://www.theguardian.com/world/2014/nov/28/nigeria-multiple-bomb-blasts-kano-mosque>, accessed on 07.06.2014.

<sup>31</sup> Sheikh Abdi, Omar Feisal, "Somali Islamists bomb two convoys, killing at least 12", *Reuters*, Monday, Sep 8, 2014, <http://www.reuters.com/article/2014/09/08/us-somalia-blast-idUSKBN0H318W20140908>, accessed on 07.06.2014.



the spokesman of the terrorist-organization called the action as a “blessed attack”. The bombing was one of the retaliation measures of the terror-organization for revenging the lost of Ahmed Abdi Godane. The ex-chief of al-Shabaab lost his life in an American airstrike the previous week.<sup>32</sup>

*June 11, 2014. Aguelhok, Mali*

A suicide car bomber detonated with his vehicle at the gate of the UN peacekeeping camp near Aguelhok, in the northeastern of Mali, in the Ifoghas mountain range, at 16:30, on June 11, 2014. The perpetrator drove his car at high speed to the barracks nearby the entrance of the UN fortress of MINUSMA where peacekeeping forces, local soldiers and their families lived. Four peacekeepers from Chad died and ten others injured (six UN soldiers and four armed men of Mali government forces). The well-known Mali Jihadist, Sultan Ould Badi, claimed responsibility for the attack. According him, this was a punishment of African peace-keepers for the assistance their countries gave during the French intervention in 2013 that resulted in the successful expulsion of the majority of Islamist extremists from the country.<sup>33</sup> The French withdrew the majority of their troops stationed in the country since the bombing. Therefore, the African peacekeepers were even less capable to assure the safety of civilian population and more severe suicide attempts were carried out against

them and Mali troops during the elapsed time. Their losses reached 31 deaths and 91 casualties since 2013 and that is considered very significant in a peacekeeping mission throughout less than a year. This is why the leadership of Mali asked the UN for rapid intervention force for fighting more effectively against Islamist extremists.<sup>34</sup>

### Conclusion

Supposedly, the number of suicide attempts will increase according to the present tendencies on the African continent. In relation with this, we have to emphasize the importance of the ideological radicalization of terrorist organizations and the role of the political instability emerged in certain countries. Another important point of view is that the terrorist organizations working in these countries have wide global connections. That is why the supplement of the necessary tools and explosives did not mean any particular problem for them. Also, there are no difficulties to find volunteers. Several applicants come from inhabitants who live under the poverty line in these economically underdeveloped countries. Above all, the solution could be to eliminate the political anarchy and stabilize the economy of these states. However, this needs increased support from the Western World.

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<sup>34</sup> Mali islamists, *Africa Journal*, <http://africajournalismtheworld.com/tag/mali-islamists>, accessed on 11.06. 2015.

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<sup>32</sup> Supposedly the terror-organization attacked the convoy because Abdikadir Mohamed Sidi, governor of Shabelle region travelled with it and he was attended by African peace-keepers and soldiers from the US. Special Forces. According al-Shabaab announcement among the victims there were four American soldiers and a South-African mercenary leader occupied by the Somali government. The governor saw the three attacking vehicle and confirmed the information about injuries of two African peace-keepers. The news of the American casualties have not been ceding by no one since then. The news of the attack referred to the survivors’ announcements, placed emphasis on only two Ugandan soldiers minor injury form the convoy everywhere. All of the other casualties were Somali civilian persons.

<sup>33</sup> “UN: Car bomb in N. Mali kills peacekeepers”, in *Associated Press*, June 11, 2014; “Suicide bomber kills four Chadian UN peacekeepers in Mali” in *Agence France Presse*, June 11, 2014.



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## THE CDSSS AGENDA

JULY - SEPTEMBER 2015

The first half of 2015 was marked by numerous events organized by the Centre for Defence and Security Strategic Studies, among which we mention: the International Scientific Conference *STRATEGIES XXI* with the theme: “*The Complex and Dynamic Nature of the Security Environment*”, the Workshop for young strategists on “Nonproliferation and disarmament” and the monthly public lectures organised at the *Palace of the National Military Circle*.

Also, in this period were drafted and published a series of specialized studies: *Theoretical and Practical Approaches on Achieving Popular Support in Theaters of Operations*, by Alexandra Sarcinschi, PhD Senior Researcher; *The Role of the European Union in the Management of Frozen Conflicts in its Neighborhood*, Cristina Bogzeanu, PhD Researcher, *The Transatlantic Trade and Investment Partnership Initiative in the Framework of US-Europe relations*”, Cristian Băhnăreanu, PhD Senior Researcher and Mihai Zodian, PhD Researcher *Strategic coverage between tradition and modernity. Theoretical perspectives*, Colonel Stan Anton, PhD Lecturer and Brig.-Gen. Gheorghe Văduva, PhD Senior Researcher, *21st Century Atypical Conflicts*, Editor Stan Anton, PhD Lecturer, Alexandra Sarcinschi PhD Senior Researcher and Colonel (Ret) Eugen Siteanu, PhD and Epistemologic Perspectives and Predictions in International Relations”, Mihai Zodian, PhD Researcher.

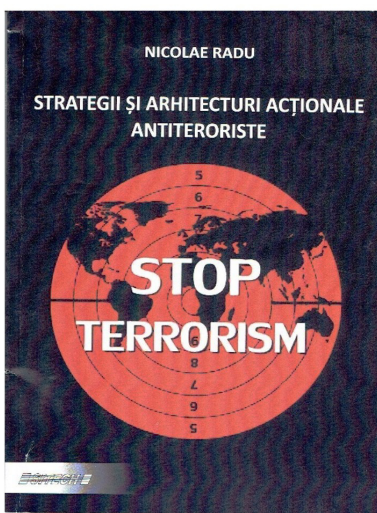
In the second half of this year, CDSSS has on its Agenda the organisation of a second workshop, which is to take place on October 10, with the theme *Romanian Army’s Modernization. Capabilities, Tactics, Strategy*. Towards the end of the year, on December 8, we are holding a Symposium with the theme *Atypical Conflicts of the 21 Century*, in which there are expected to present their lectures researches, academics and representatives of security and defence institutions.

***Irina TĂTARU, PhD***

*Translation from Romanian by Daniela Răpan.*

# STRATEGIES AND ACTIONAL ARCHITECTURES TO COUNTER TERRORISM

*Irina TĂTARU*



The book “Strategies and actional architectures to counter terrorism” elaborated by Mr. Chief Commissioner Nicolae Radu PhD Professor, was printed by Sitech Publishinghouse in Craiova, in 2015 and focuses on a very current topic, especially given the acuteness of the terrorism issue. Throughout the 112 pages, the author calls for deep reflection. The work is divided into 10 chapters: A new war of the future, Anti-terrorism, “Counter-terrorism”, Counter-terrorism measures, Operational actions, “Niche Warriors”, The National System for Preventing and Combating Terrorism, Counter-terrorism structures, External units specialised in terrorism response, Sayeret Mat kal (Unit 269), which are preceded by an introduction and finalised with a series of conclusions. An extensive bibliography and seven appendices are added for further support. To emphasize the message of the book, illustrations have been used together with

diagrams and Appendices graphs which facilitate the understanding of the presented issues.

Followed by the wave of immigrants who are already in Europe, anti-terrorist strategies became a necessity of the present, terrorism starting to be considered “a new war of the future”. Terrorist organizations make use of a wide range of techniques to achieve their goals: from drawing women and children for suicide bombings to depriving army and ammunitions specialists and military instructors of their liberty. Clearly, preventing and combating terrorism has and continues to play a crucial role in ensuring national and international security.

The border between terrorism and a counter terrorist can be characterized by intelligence, cold blood and a perfect physical preparation in overcoming the unknown. A terrorist will sacrifice and kill for a cause known only by himself, while a counterterrorist will take life risks for a better world.

The demarche initiated by the author is meritorious, his multidisciplinary preparation and approaches being evident. The author manages to capitalize original sources of information and develop possible research directions in the field of intelligence and national security.

It is important to mention that the text is shaped by the great use of reality examples. The role of the multiple illustrations is to convey the message with a unique emotional power. The target audience for this volume is formed mainly of specialists in national security but also of relevant interested readers of counterterrorism training. Being a terrorist is not available to everyone, but fighting terrorism gives life meaning.



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## BOOK REVIEW

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Unfortunately, as underlined by the author, „The heroism in this century will reflect technological developments, social changes, regional, state and global transformations, as well as changes in worldwide power dynamics”. At the same time, the author points out that “terrorist tactics will adapt to the modern society vulnerabilities, which, being under constant development cannot provide the sufficient security needed”.

In essence, the author manages to make a meaningful analysis of terrorism in the XXI century and showcasing counter-terrorism measures taken at national and international level, thus facilitating the identification of risks and threats that may emerge in this field in a more complex and harder to predict international context. The book is a good guide for experts in national security, but also addresses readers who are concerned with a possible training in counterterrorism.



## 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://geopoliticraticus.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.

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**NOTA BENE:** Articles shall not contain classified information.

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