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Military Theory and Science Journal
Published by the Romanian Armed Forces General Staff

Founded in 1864 under the name "Military Romania"
- English edition, 9th year -

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Through the agency of this journal all officers, belonging to all branches, who are in service, will be able to publish their personal papers and the ones that interest the Armed Forces".

Carol - King of Romania
Issued in Bucharest on 8 December 1897

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Fair Winds and Following Seas!

Motto: *"If we have a Navy and we will have no need of it, we could only lose the money; if we do not have a Navy and we will need it, we could lose the country".*
(Lieutenant Commander Gh. Mocanu,
the *Black Sea Strategy*,
in *România Militară* no. 3-5/1943)

I have always admired seamen. I got to know them at home, in 1993, when I was on board a naval ship, a mining vessel, for the first time, during the navy training study tour period, when I was an officer candidate at the Academy of Higher Military Studies and then, in 1996, when I parachuted into the Black Sea, and I was accommodated aboard the diving support vessel. I was impressed by the naturalness with which they obey and require obedience to the specific rules and procedures aboard. Rules and procedures, as well as rituals and even customs, all being fundamental parts and conditions for successfully practising a profession that is so difficult but also so rewarding. A profession that, besides the rigours imposed by the imperative of the binomial ship-crew perfect functioning, impresses by the great respect for tradition, as a condition for the perpetuation of the perennial values of the guild that guarantee its noble origin. The Naval Service uniform, distinct in the panoply of military uniforms of any country, but having elements and features that are common to all those serving in the Navy worldwide, is a sign of their membership of the same order of chivalry.

I have admired those who serve in the Navy not only for their skills and the relaxation with which they carry out their duties, but also for the serenity with which they comply with strict rules, and the ease with which they accept the austerity of the life on board the ship. I both admire and envy them for their esprit de corps, which seems to have diluted almost everywhere else, while it has been in any confrontation with the unleashed sea or with any potential enemy. In addition, I have been fascinated with the terms and expressions used by mariners, a language that I could not decrypt without the help of some experts in the field.

On the *Navy Day* – as the day when the Romanian Naval Forces are celebrated is set in the collective consciousness – in the crowd that watch the demonstration exercises from the Casino seawall in Constanţa, the other ports or on television, there are few who realise and appreciate the seamen effort and dedication to meet the increasing exigencies in, unfortunately, more severe austerity budget conditions. For many of the onlookers, the parade of warships off shore – a vivid image whose authenticity cannot be challenged here, at the Euxine Pontus or on the Danube – and the demonstration exercises conducted on shore are sufficient to meet the need for entertainment. As for the *actors*, those who stage this impressive show, is it fair – or unfair!? – that they are not really seen. However, they are there and they carry out their duties with passion, with the responsibility that derives from the importance of the role each of them plays so that all this huge gear can function perfectly. On board the frigates, corvettes, missile carriers, torpedo boats, dredgers, mining vessels, riverboats, ancillary vessels, in the staffs and maintenance centres, those who serve in the Navy and the Marine Infantry confirm that Romania has available, both at the Black Sea and on the Danube, the military forces that are necessary to meet the commitments to the North Atlantic Alliance, to strengthen security, stability and democracy in the region.

Old bridge between Europe, Asia and the Middle East as well as new Euro-Atlantic border, the Black Sea is one of our doors to the world, connecting us to the geopolitical space. The access to the sea is, above all, a springboard for our vocation to universality.

A lot has been written and talked at the highest political-military level about the constant importance of the Black Sea region to Euro-Atlantic security and about its relevance to NATO, and the necessity to transform this area, marked by transnational and cross-border threats, by frozen conflicts, in a pole of regional stability and prosperity has been always emphasised.

Many times, it has been the subject of dispute between the great powers of the time, which tried, in one form or another, to impose their rule here but its waves, sometimes hot and turbulent, have calmed down and brought back the breeze of hope. Hope that should be fed by all the states in the Black Sea basin with common views and interests, as real arguments of certitude. Today, when the shores of other seas nearby have got inflamed, the Black Sea should be an area of constructive dialogue and cooperation between coastal states. The Black Sea Naval Cooperation

Task Group, *BLACKSEAFOR*, Romania has actively participated in since its establishment, in 2001, fruitfully materialises this regional security initiative.

The Romanian Naval Forces have proved that they are capable of defending national interests at sea and on the Danube, and the recent participation in multinational crisis response operations (*Active Endeavour*, *Unified Protector* and *Atalanta*) reaffirms Romania's strong commitment to take part, within the North Atlantic Alliance and the European Union, in enlarging and strengthening the peace and security climate in the region and in the world.

The celebration of the Romanian Navy Day provides a further opportunity to admire those who serve in the Romanian Naval Forces, to honour them for their attitude – both dignified and lofty – when they look up to the full dressing of ships while their hearts beat tuned to the rhythm of the Romanian national anthem, and to thank them for the dedication and professionalism they prove while guarding the coastal zone boundaries of the country, carrying out their duties, alongside the other Armed Forces services, so that Romania can meet its international commitments.

Colonel Dr Mircea TĂNASE
English version by
Diana Cristiana LUPU

Bon vent et bonne mer!

Motto: *„Si nous aurons un Marine et nous n'en aurons pas besoin, nous perdons seulement de l'argent; mais si nous n'aurons pas de Marine et nous en avons besoin, nous pourrions perdre le pays“.*

(Lieutenant-commander Gh. Mocanu, *Strategia Mărei Negre/La Stratégie de la Mer Noire*, în *România Militară*, nr. 3-5/1943)

J'ai toujours admiré les marins. Je les ai connus chez eux, en 1993, quand j'ai posé premièrement le pied sur un navire militaire, un bâtiment de guerre des mines avec qui nous avons fait une partie de notre voyage d'études à *l'application de mer*, quand j'étais un officier-étudiant à l'Académie de hautes études militaires et puis, en 1996, lorsque j'ai fais de parachutisme sur la Mer Noire et le navire-base des plongeurs profonds était notre accueil. J'ai été aussi impressionné par le naturel avec lequel ils respectent et demandent à être respecter les règles et les procédures spécifies au bord de navire. Règles et procédures, mais aussi des rituels et même des habitudes, toutes comme des parties et des conditions fondamentales pour exécuter avec succès une profession aussi difficile que pleine de contentements. Une profession qui, en plus des exigences imposées par la nécessité d'un fonctionnement sans faille du binôme le navire-l'équipage, impressionne par un grand respect pour la tradition, comme une condition de perpétuer les valeurs éternelles de la guilde, des garanties pour ses origines nobiliaires. L'uniforme de l'arme, distincte dans la panoplie des uniformes militaires de toutes les armes, mais avec des éléments et des traites communes à tous les marins du monde, est un signe d'appartenance au même ordre de la chevalerie.

J'ai admiré aux marins non seulement leur habileté et désinvolture avec lesquelles ils accomplissent leurs fonctions aux postes de travail, mais également la facilité avec laquelle ils se conforment à des règles strictes et l'accessibilité aussi avec laquelle ils acceptent l'austérité de la vie sur le bateau. Je les apprécie et je les envie en même temps pour leur esprit de corps, de plus en plus délavé, tout de même, dans d'autres régions, mais édifié ici sur des piliers forts, où il est aussi vital que l'armature du navire en toute confrontation avec la mer déchaînée ou un adversaire potentiel. En outre, j'ai été fasciné par les termes et les expressions du vocabulaire de la Marine, un langage que je ne pouvais pas entièrement déchiffrer sans l'aide de spécialistes en domaine.

A *la Journée de la Marine* – tel que figure la fête des Forces Navales Roumaines dans la mentalité collective –, dans la foule qui assiste sur la falaise du Casino de Constanţa, dans d'autres villes-ports ou devant la télévision aux exercices démonstratives, rares sont ceux qui réalisent et apprécient l'effort et le dévouement des marins de se présenter au niveau des exigences de plus en plus élevés dans une austérité budgétaire malheureusement plus sévère. Pour beaucoup de spectateurs, le défilé des navires de guerre en mer – une image vivante que, ici, au Pontus Euxinus ou à la Danube, nul ne peut contester son authenticité – et les exercices démonstratifs tenus près de la rive, sont suffisants pour répondre aux besoins d'état d'esprit. Quant aux *acteurs*, ceux qui mettent en scène cette pièce émouvante, il est juste – ou est-il injuste!? – qu'ils ne voient pas vraiment. Mais ils existent et ils font avec passion son profession, avec de la responsabilité conférée par l'importance du rôle de chacun dans le bon fonctionnement de cet immense engrenage. A bord des frégates, des corvettes, des transporteurs de missiles, des vedettes, des torpilleurs, dragueurs et des navires d'exploration, bateaux de rivière, des navires fluviales, auxiliaires, dans les états majors et dans les centres de maintenance, les marins et les infanteries de la Marine Roumaine confirment que notre pays possède à la Mer Noire et aussi au Danube de la force militaire nécessaire à respecter les engagements assumés en vertu de l'OTAN, de renforcer la sécurité, la stabilité et la démocratie dans la région.

Vieux pont entre l'Europe, l'Asie et le Moyen-Orient, mais aussi une ravivé frontière euro-atlantique, la Mer Noire est l'un de nos portes vers le monde, pour nous connecter à l'espace géopolitique mondiale. La sortie à la mer est, avant tout, une rampe pour exprimer notre vocation vers l'universalité.

Quant à l'importance constante de la Mer Noire pour la sécurité euro-atlantique et quant à sa pertinence pour l'OTAN a été beaucoup écrit et parlé souvent au niveau politique et militaire le plus élevé, en soulignant à chaque fois la nécessité de transformer cette région, marquée par des menaces transnationales et transfrontalières, des conflits froids, dans un pôle de stabilité et de la prospérité régionale.

Souvent l'objet du litige entre les grandes puissances de l'époque, qui ont tenté, sous une forme ou une autre, d'imposer ici la domination, ses vagues, chauds et turbulents parfois, étaient tempérés et on amenait du nouveau la brise de l'espoir. Une espérance que tous les Etats de la région de la Mer Noire doivent nourrir par des visions et des intérêts communs, comme des arguments certains. Aujourd'hui, alors que les rivages d'autres mers de la proximité étaient impétueux, la Mer Noire doit être prise en compte dans la construction d'un espace de dialogue et de coopération entre les Etats riverains. Le Groupe de coopération navale regroupant les pays riverains de la Mer Noire, *BLACKSEAFOR*, dans lequel la Roumanie participe activement depuis sa création, en 2001, concrétise fructueusement cette initiative de la sécurité régionale.

Les Forces Navales Roumaines ont prouvé qu'elles ont la capacité de défendre les intérêts nationaux sur la mer et sur le Danube, et la participation récente dans les opérations de réponse aux crises multinationales (*Active Endeavour*, *Unified Protector* et *Atalanta*) réaffirme l'engagement immuable de notre contribution dans l'OTAN et de l'Union européenne, pour élargir et renforcer le climat de la paix et de la sécurité dans la région et dans le monde.

A la grande fête de la Marine roumaine, j'ai trouvé une nouvelle occasion de regarder avec admiration envers les marins roumains, à chérir leur attitude – fière et sobre également – quand ils lèvent les yeux au Grand Pavois, avec le rythme de ses cœurs accordé à l'hymne national de la Roumanie et de les remercier pour leur dévouement et le professionnalisme avec lesquels ils gardent les frontières de l'eau du pays et de mener, avec d'autres forces de l'armée, les engagements assumés par la Roumanie au niveau international.

Version française par
Alina PAPOI

DEFENCE RESOURCE MANAGEMENT

– Human Resource Management – (I)

General (r.) Dr Mihail ORZEAŢĂ

The continuous struggle for a better life has become a normal way of living for every human being, especially for those of us who want to be performers. As a consequence, if we make a wrong choice – between performers and survivors – then everyone will suffer because of the unseen connections that exist among all the inhabitants of the "global village".

Humans have always been the most important resource we have for defending our country, which is why we need to be aware of the evolution of the national human potential in the coming years. It is very important to know the current situation of the human resource for defence, but it is also equally important to take the appropriate measures for protecting and developing it. The focus should be on humans because they are the military body's brain and hands as they are the ones who create strategies and act for implementing them.

***Keywords**: interoperability; human capital; military transformation; future battlefield; globalisation*

The period we live in, dominated by globalisation and information, is perceived differently by each of us, depending on the level of education and information, on personal experience and even on own social position. This period compels us to permanently adapt, because it is *"the Age of Inherent Instability…, implying a world full of uncertainty, ambiguity and change"*[1]. The characteristics of the Information Age and globalisation scare most people because we are required to make a choice between two main objectives: performance and survival. Our choice affects not only us but also those around us – family, friends, colleagues, fellow citizens etc. –, namely all the inhabitants of the *"global village"* we live in, because, whether we want it or not, our destinies are intertwined and the more the ones who choose to be competitive are, the better it will be for us. This is the *"New Normal"*[2] we are heading for and only we, the people, namely those representing the human resource, can make the difference between prosperity and survival.

General (r.) Dr Mihail Orzeaţă – Adjunct Professor, *"Carol I"* National Defence University, Bucureşti, former Deputy Chief of the Romanian Armed Forces General Staff.

[1] Mark Eppler, *Capcanele managementului*, Editura Polirom, Iaşi, 2007, p. 14.

[2] *Ibidem*.

Given that, in particular circumstances, people have been the reliable prop of the Romanian nation, and it will be so in the future, the best decision is that each of us should understand not to look back longingly, hoping for *"better times"*, but to look into the future and adapt to its requirements.

1. Conceptual Clarifications related to Human Resource

In a general sense, resource means *"reserve or source of means able to be capitalised on in a given circumstance"*[3]. In a broad sense, defence resources refer to *"all the means (possibilities) that exist at a given moment to meet the needs imposed by military actions"*[4].

According to the law, defence resources consist of *"all the human, material, financial and other resources that the Romanian state provides and engages to support the homeland defence effort"*[5].

Defence human resource consists of all the military and civilian personnel of the Ministry of National Defence, as well as the reserve personnel that, if needed, may be mobilised to take part in the nation efforts to handle emergency, crisis or war situations.

Defence human resource management is a process consisting of activities related to the recruitment, selection, career guidance, education and training of the personnel employed in the Ministry of National Defence.

Recruitment is the process of identifying the Romanian citizens, adults, able to meet the requirements of military service in peacetime, crisis and war.

The Romanian citizens can become active duty military personnel following two paths: direct and indirect. The ***direct path*** entails the recruitment and entry into the military education and training system for military volunteer and military personnel positions. The ***indirect path*** entails the recruitment and entry into the military education and training system for military personnel positions. For each of the two paths admission and performance criteria during the process of education and training are established.

Since military service is performed on a voluntary basis, recruitment is aimed at knowing the human potential of the nation to establish the basis for selection.

Recruitment activity is the responsibility of the County Military Centres as well as of the Zonal ones which, in cooperation with the territorial structures

[3] xxx, *Dicţionar Explicativ al Limbii Române*, Editura Academiei Republicii Socialiste România, Bucureşti, 1984, p. 801.

[4] xxx, *Lexicon militar*, Editura Saka, Chişinău, Republic of Moldova, 1994, p. 281.

[5] xxx, *Law on National Defence no. 45/1994.*

of the Ministry of Internal Affairs and the local administrative structures – municipalities and prefectures –, constantly evaluate the quantity and quality of the nation's human capital.

2. Nation's Human Resource Assessment

It is necessary to know the nation's human potential because the human resource is the most important component of defence resources. It is well known that any strategy and any plan for the development and transformation of the military body should be developed based on the current human potential as well as on the prognosis of its development. The assessment of the nation's human potential is based on the following criteria:

- distribution by gender, age, level of education, professional qualification, geographical regions and territorial-administrative structures;
- birth rate;
- mortality rate;
- population growth rate and its prognosis in the short, medium and long term;
- population density, at national level as well as at regional and county level;
- total population.

2.1. Gender Distribution

Military recruitment is non-discriminatory, but the lessons learned from daily military activities and from the conflicts and wars conducted over time have shown that men are more suitable for combat actions. There are many arguments to support this statement and the most important ones are the following: greater resistance – physical and mental – to stress, dangers, poor living conditions (in tents or in the open, without comfort; living together, in mostly male communities; prolonged isolation etc.); higher adaptability to the military regime, which entails many privations, greater physical strength etc. On the other hand, women are more suitable than men for the following fields: financial accounting, equipment, feeding, administration and public relations. Of course, there are exceptions but, for the national assessment, it is necessary to take into account the average values, which help to assess the real human potential of the nation. There are no significant differences in performance between women and men in areas such as: health service, communications and information, education, personnel, intelligence, civil-military relations etc. As a result of these findings, it is important to know the ratio between men and women to broadly assess the nation's human potential.

2.2. Age Distribution

The studies conducted so far worldwide have shown that the optimal age for military activities is between 20 and 60. There are, of course, exceptions but the selection basis for reserve human resource should consider what is common (average values) and not exceptions. Moreover, the decision to use people between 20 and 60 of age in defence efforts is also based on the studies that have addressed the evolution – physical and mental – of people. These studies have shown that, with age, there are some ***physical and mental changes*** that diminish the ability of people to cope with efforts and dangers, mainly because of:

- the reduction in physical strength, stress resistance, and physical and mental endurance;
- the diminution in the ability to react and adapt to changing situations;
- the diminution in the ability to see, hear and memorise;
- the increase in self-preservation instinct etc.

Although life expectancy is increasing, war is for young people, because they can adapt quickly to the changing situations during operations and withstand the known and expected privations and dangers *("in developed countries, the retirement age is sometimes 60, generally 60 and 65, in Denmark 67… All advanced societies acknowledge the notion of individual physiological decline"[6])*. Moreover, there are not encouraging forecasts relating to the share of the elderly *("In the coming decades, the demographic changes will lead to the increase in the number of the elderly in the peoples of the EU"[7])*, which should be followed by political, educational, and social measures to increase birth rate and maintain an optimal ratio between the young and the elderly.

2.3. Education and Professional Qualification Level

It is very important that military planners and decision-makers should know whether those who can be enlisted need a short or long training period, depending on the ratio between the level of their knowledge and skills and the level of the knowledge and skills required by the operation or by the use of a particular type of combat asset or weapon system. This indicator is necessary:

- for recruitment, to decide in which field (military specialty) the recruit has the knowledge, skills and abilities to be employed and become competitive in the shortest time possible;

[6] Pierre Accoce, Dr Pierre Rentchnick, *Bolnavii care ne conduc*, Editura Z 2000, Bucureşti, 2000, p. 8.
[7] Lucica Matei, *Management public*, 2nd Edition, Editura Economică, Bucureşti, 2006, p. 118.

- in crisis situations and at war, to estimate the time that is necessary for a military structure, which has been supplemented with personnel or has been established by mobilisation, to achieve the required readiness level to carry out the assigned missions.

3. Prognosis of the Nation's Human Resource Evolution

Based on the birth rate, mortality rate – especially infant mortality rate – and population growth rate, the trends in the nation's human potential can be predicted using the following criteria: gender and age distribution, and the total population. In the event that negative population growth trends appear or the share of the elderly is higher than that of the young, then the causes should be analysed and corrective measures should be taken: enhancement of healthcare system, improvement in living standards, increase in birth rate by providing families incentives to have children or giving bonuses to families with several children.

The assessment of the nation's human capital should include the level of education and qualification distribution to know the selection basis for each military specialty and the human resource availability for each type of unit and large unit. In case there are not enough existing human resources for certain military specialties measures should be taken to educate and train them in the civil or military education system or in both civil and military ones.

It is very important to also know other elements related to the human resource quality such as:

- the recruits and reservists who are members of or who are involved in the activities organised by extremist parties, or who are members of organisations prohibited by law;
- the attitude towards the nation, sovereignty, public order, democracy and the rule of law;
- the attitude towards NATO and the EU;
- the degree of cohesion of the population, in general, and of the local communities, in particular;
- the number of those who have committed antisocial acts, and the risk level.

Finally, as far as the analysis of the nation's human potential is concerned, military planners and decision-makers should know:

- the population morale in special situations;
- the estimated degree of support the population can give to the Romanian Armed Forces and to certain decisions of the leadership of the country related to national security and defence;
- the quantitative and qualitative availability of human resources in case of mobilisation.

4. Human Resource Selection and Training

4.1. Human Resource Selection

Human resource selection is very important and it should be permanent as it is intended to:

- identify the Romanian citizens that can be part of the active duty and reserve military personnel;
- distribute the recruits to military and education units to become military volunteers or active duty military personnel;
- identify the active and reserve personnel that should be promoted and establish the career path for each military man and woman, depending on the individual potential and personal qualities (courage, initiative, team spirit, integrity, willpower, tenacity, physical and mental strength, sense of discipline, loyalty, altruism etc.) as well as on the level of professional competence;
- establish the inputs and outputs of the system, so that a balance can be struck between: categories of personnel; ranks, within the same category of personnel; management and operation positions etc.;
- establish the criteria each candidate should meet – to fill a position or to be promoted in the Ministry of National Defence;
- permanently adapt the criteria for the personnel entry and retention in the system, in compliance with the evolution of the Romanian Armed Forces, NATO, and the EU transformation process.

So that the human resource selection activity can be successful, those who are in charge of it should take into account some lessons learned in the personnel selection and promotion process[8]:

- man has visible emotions and behaviour;
- man can be controlled by different functions of the management process;
- man is subjective;
- man is rational as, through his activity, he seeks material benefits and titles;
- man uses both his professional knowledge and his intellectual potential to be promoted;
- if justly appreciated, man uses his intellectual potential creatively.

The human resource is also called *"human capital"*[9], as it is the most important resource of the society and therefore it should be invested in to have long-term notable results. The studies undertaken by leading scientists in our country

[8] Maria Gâf-Deac, *Îndrumar pentru management modern*, Editura Fundaţiei România de Mâine, Bucureşti, 2008, p. 87.

[9] Colonel Professor Dr Constantin Rizea – coordinator, *Managementul resurselor apărării*, Editura Academiei de Înalte Studii Militare, Bucureşti, 2002, p. 42.

and abroad have shown that *"about 80% of the developed countries welfare is based on the contribution of the human capital"*[10].

The human resource quality can decide the outcome of war by the training level, the sense of discipline and morale *("Morale means perseverance, courage and hope. It means confidence, zeal and loyalty. It means to stay strong, it means the spirit that endures up to the end – the will to win. With it, all things are possible, without it, nothing, planning, preparation, production, matters"*[11]*)*.

4.2. Human Resource Training

Human resource, both the active and reserve one, should be trained to carry out the assigned missions. Acknowledging the current and predicted exigencies of the military body transformation, of the Romanian society, and of the Euro-Atlantic structures Romania is part of, the education and training process in the armed forces is connected with the transformation process objectives and requirements. In this regard, the *Armed Forces Training Doctrine* and the *Military Education Reorganisation Concept* have been developed.

According to the *Armed Forces Training Doctrine*, all personnel should be consistent with the principle *"we train as we fight"*, principle that requires perseverance, realism and commitment in both individual and command training processes.

Many leading experts state that the future is in the *"knowledge society"*[12], meaning continuing education to be competitive and efficient. The military profession is honourable but demanding to supreme sacrifice. Therefore, education and training can and should meet the most important objective of transformation: ***the personnel mental adaptation to permanent change*** and its tailoring to meet the requirements of the future battlefield. The mind is not only the most important strength but also the most important weakness of each and every man, as *"no one ever is defeated until defeat has been accepted as a reality... human mind builds or ruins... the only barriers in the mind are those we raise ourselves"*[13]. In this context, we consider that the war of the future will be won mentally, as the ***human mind is the most powerful weapon***. This truth has been known for a very long time and when it was not correctly understood and applied, problems occurred:

- the USA *"lost"* the war in Vietnam because of the fighters morale and of the domestic public opinion pressure, as it no longer supported the continuation of the war;

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[10] *Ibidem*, p. 46, cited from Ibbotson and Gary Brinson, *Investment Markets*, McGraw-Hill, New York, 1987, pp. 21-25.

[11] William A. Cohen, *Înţelepciunea generalilor. Managementul strategic al afacerilor*, Editura Antet, Filipeştii de Târg, Prahova, 2006, p. 89.

[12] Acad. Mihai Drăgănescu, *Societatea informaţională şi a cunoaşterii. Vectorii societăţii cunoaşterii*, p. 26, see www.racai.ro/INFOSOC-Project.

[13] Napoleon Hill, *De la idee la bani*, Editura Curtea Veche, Bucureşti, 2008, pp. 39, 118, 137, 270.

- the incidents in Abu Ghraib jail, in Iraq, did a great disservice to the USA and the Multinational Coalition, because of some military men who did not have moral integrity and violated the laws of warfare, the military code of honour respectively *("Many of the things that the USA has done in Iraq are unforgivable. However, those we have sent to wage this unforgivable war make incredible sacrifices – they continue to make these sacrifices –, for which they do not receive gratitude. It is a paradox which can never be resolved!"[14])*;
- the ethnic cleansing in the former Yugoslavia, the atrocities in Rwanda, Darfur, Somalia etc. are consequences of the actions of people who disrespected themselves and disrespected the written and unwritten laws of warfare.

When decision-makers and operating personnel attached due importance to the fighters' multilateral training, success was closer to those who had higher morale and who were better trained:

- the Arab-Israeli wars were won by the Israelis due to their better training and higher morale;
- Napoleon won the majority of wars, although outnumbered, due to the higher morale of his forces and to the way he led the army in battles[15].

5. Conclusions

Resources play a **crucial role** in all the analysis, assessment, decision-making activities and, subsequently, in the coordination of the transformation process, because they represent both the basis for the process initiation and the *"fuel that feeds it"* throughout its development. Therefore, the multi-year planning, achieved through the *Defence Planning Directive*, provides a reasonable perspective for political and military decision-makers, but the failure to completely meet the planned objectives has implications in the medium and long term, as some capabilities can be ensured only in time, in years and sometimes even decades.

Human resource is the most important capital of the nation, so it should be attached due importance to develop in accordance with the current and future requirements of the security environment.

English version by
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[14] Florin Rusu, *Interviw with Steve Făinaru, a Romanian-born journalist, Pulitzer Prize winner*, published in *Săptămâna financiară* journal, 18 May 2009, p. 10, see www.sfin.ro.

[15] Colonel (ret.) Trevor T.N. Dupuy (the US Army), *Numbers, Predictions and Wars*, MacDonald and Jane's, London, 1979, p. 3.

CONCEPTUAL ELEMENTS RELATED TO DEFENCE ORGANISATIONAL ARCHITECTURE IN NATIONAL CONTEXT

Colonel Dr Radu UNGUREANU

We are witnessing, in the author's opinion, an unprecedented development of the procedures for the transfer of authority by adopting, in the national command and control systems, some elements in the international practice, aimed at providing commanders with limited authority, which has implications relating to the emergence, in the dynamics of conducting combat actions, of some limitations regarding the exercise of the command act, with effects on the proper development of the operation.

The development of new operational concepts is essential to formulate appropriate responses to security challenges. Detailed practical arrangements and avoidance of duplication as far as capabilities and operational elements are concerned represent key elements of the operational architecture since the beginning of the 21st century.

***Keywords**: command and control; special operations forces; multinational operations; psychological operations*

Argument

The assessment presented in a previous article related to the lessons learned from the operations carried out in South-East Asia in the '60s and the '70s, mainly referring to Operation *Linebacker II* in Vietnam[1], highlights a series of conclusions regarding the causes that led to the outcome of the confrontation, materialised in the withdrawal of the US troops and the extension of the communist control over the entire Vietnamese territory.

Even if the success of some operations and, in particular, of *Linebacker II* air campaign met the political and military objectives and resulted in the signing by the North Vietnamese of the agreement that allowed the end of hostilities and the safe withdrawal of the US forces, the war as a whole was lost. The US considerable war effort was fully justified because it showed the democratic nations determination to oppose, even by force, the expansion of the communist area of influence at global level and kept the situation in Europe at the *Cold War* level.

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[1] Colonel Dr Radu Ungureanu, *Linebacker II – Victorious Air Operation in a Lost War. Lessons Learned*, in *Romanian Military Thinking*, no. 3/2012, pp. 168-182.

It resulted that the US military response to this type of crisis should be reconsidered in the light of new conditionalities of operational nature characterised by short reaction time and asymmetrical approach to military confrontation.

The identified solutions led to the development, in the medium and long term, of the *CJTF* concept, which was successfully applied in the major military confrontations at the beginning of the 20th century. Therefore, joint task forces have an expeditionary connotation and express the capability of nations to project forces at strategic distances outside the national territory to conduct operations in a joint context. The considerable effort to generate such forces and other political considerations have led to the establishment of some mechanisms for their formation in multinational context, which has entailed setting strict responsibilities for contributing nations, and command-control mechanisms that do not affect the possibility of exercising national authority over own troops.

The presented arguments have resulted in the necessity for national armed forces to undergo major reorganisation so that they can generate the necessary mechanisms and compatible forces to perform joint multinational operations outside the national territory. In this context, the great military powers have established, even in peacetime, rapid reaction corps, having in their structure land, air, naval components as well as special operations and psychological operations forces able to be deployed in the theatres of operations under national command. The strategic command of these forces is exercised in national or allied context, depending on the command authority established by mandate. It is understood that not all nations are able to employ such capabilities and therefore they participate with forces through delegation of authority, which implies limiting national responsibilities over own forces to administrative issues. For these reasons, the organisational models of national command systems should be approached differently, according to the actual command needs, the level of ambition, and the level of participation with forces.

Thus the operational reconfiguration is aimed at developing the capacity of nations to take action at global level and not in the strict framework of national defence, and the transfer of authority in its various forms is aimed at the troops operating in a multinational context. Therefore, the adaptation to the requirements of this approach does not entail transforming national armed forces into expeditionary task forces or establishing them at the level of the force structure. Given that Romania will act in allied context, NATO operations plans will surely take into account the mechanisms to generate and engage multinational joint task forces, the nations acting to fulfil the national responsibilities related to providing the Alliance with the necessary capabilities to meet commitments. Consequently, in the case of conducting major operations on the national territory without the involvement of the Alliance, the joint character of actions can be assured from the moment hostilities commence, through the command exercised from the strategic echelon of the armed forces, and then from the operational level of the armed forces services, as the operational planning documents are implemented and supporting/supported command is established. In this way, joint operations or operations specific to armed forces services can be executed at operational level according to the concept developed at strategic echelon. In the most likely situation, in which the Land Forces Command would execute a joint operation, the Land Forces commander would take the operational command for its execution, and the Air Force and the Navy commanders would act to support the Land Forces commander. Simultaneously, the other services can perform specific or joint operations, depending on the situation, following the same algorithm. It requires a modular approach to command structures to allow augmentation using the necessary staff elements from the other commands, depending on the operation requirements. In addition, the Land Forces Command should have the necessary capabilities and facilities to generate and deploy a corps level command in the area of operations.

Conceptual Delineations

We are currently witnessing an unprecedented development of the range of conceptual approaches to structural projections, including the designations of different command and control echelons that tend, in our opinion, to increase the system complexity too much and to decrease the capacity of national authorities to command and conduct multinational and joint actions.

In the literature we have identified various command echelons having different names as follows: control points, centres, headquarters, commands, staffs, components, not to mention that each of them is complemented by specific names (operational, strategic, tactical, national, military, supreme, main etc.). To them it is added the concern of some military experts to establish different configurations of the command and control chain for peace, crisis and war, marked by a system of highly complex relationships between echelons (command, control, coordination, operational command, operational control etc.). For these reasons it is appropriate, in our opinion, to establish, at conceptual level, a comprehensive, simplified and flexible approach to the command and control structural systems, starting from the following working hypotheses:

- maintenance of the configuration of the force structure and of the national command chain unchanged in peace, crisis and war;
- clear delineation of command echelons and their responsibilities in the operational planning process;

- achievement of a force structure to allow for:
  - rapidly and gradually conducting military actions in accordance with the scope of aggression;
  - simultaneously conducting at least three joint operations under the responsibility of the land, air and naval forces commanders;
  - rapidly manoeuvring forces and assets and achieving surprise;
  - timely ensuring the necessary resources to maintain the pace of actions;
  - deterring the enemy;
- conceptual delineation between the designations of different echelons commands and those of facilities and infrastructure elements (command points and centres, headquarters – HQ);
- decrease in the number of commands and their tailoring to reduce bureaucracy and focus the staff efforts on combat training.

The working hypotheses in this article are based on a comprehensive approach to the fundamental elements of the existing operational configuration at international level described in the literature.

The headquarters (HQ) *is the military installation from which a commander performs the functions of command*[2]. The headquarters is thus *an element of infrastructure from which commanders exercise command responsibilities*; in the past, the *general's headquarters were a couple of large tents*[3] being thus associated with the commanders having the rank of general.

The command centre *is an infrastructure element, a central place for* carrying out *orders and for supervising tasks*. Therefore, a command centre is designed to perform three main activities: input, process and output orders, messages and reports regarding the current situation and the progress made in relation to a specific objective that has been set[4].

We exemplify what has been presented relating to command centres by the institution of the National Military Command Centre in the Pentagon. It provides continuous monitoring and coordination of military operations at global level and supports commanders, the Chairman of the Joint Chiefs of Staff, the Secretary of Defence and the President in the command and control of the US forces in peacetime, contingencies and war[5].

Therefore, command centres and points are elements of infrastructure, facilities available to *commands (commanders and staffs)* to command force structures.

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[2] See http://www.thefreedictionary.com/military+headquarters

[3] *Ibidem*

[4] See http://en.wikipedia.org/wiki/Command_center

[5] See http://www.clancyfaq.com/NMCC.htm

Staffs represent personnel groups acting under the authority of commanders, established in accordance with the specific requirements related to the execution of the assigned combat missions[6], who process the orders, messages and reports to be transmitted in the flow of information to be made available to the commander and, depending on the situation, to the other echelons in the related force structure[7].

Variant Approach to the Organisational Architecture Reference Elements

The considerable diversification of risks, dangers and threats to global security requires a new orientation in the forces organisational design, which is mainly aimed at shortening the chain of command, enhancing the relevance of the military component in planning the resources that are necessary to carry out the mission, exploiting the reaction capability, and increasing the weight of troops compared to command structures, as well as the number of deployable structures that are highly trained for combat, while maintaining the reserve forces, capable of being timely employed to strengthen the echelons involved in ongoing operations or to replace the manpower employed initially.

From these standpoints, firstly, we consider appropriate to establish, following the organisational model of most countries in the Euro-Atlantic area, the office of the *Chief of Defence Staff – CDS* or *Chief of Defence – ChoD* as the second position in the military chain of command after the Supreme Commander – *Commander-in-Chief*, who may be the Head of that particular state. In reality, the Head of State acts on the recommendation of the ministers with responsibilities in the field, and the Chief of Defence is subordinate to the Minister of National Defence[8].

In this context, we consider that the Chief of Defence main responsibilities should be focused on the armed forces command, control and management, military plans and strategies, and requirements as follows:

- conduct of operations on the national territory and beyond, in accordance with the set political objectives, protection of forces and maintenance of the readiness level that is necessary to carry out the assigned missions;
- development of forces to meet national and international commitments by permanently enhancing the organisational structure, the staffing process, and the management processes to use resources efficiently;

[6] See http://en.wikipedia.org/wiki/Command_(military_formation)
[7] See http://en.wikipedia.org/wiki/Staff_(military)
[8] See http://en.wikipedia.org/wiki/Chief_of_the_Defence_Staff

- implementation of defence strategy;
- establishment of the strategic procurement needs in accordance with operational requirements and mission needs;
- defence budget preparation and execution;
- development of military relationships with the armed forces of other states.

Secondly, we appreciate that the organisational architecture in peacetime, crisis situations and at war should be unique and grounded in a strict conceptual delineation between the force structure (strategic, operational, tactical echelon commands, forces) and the facilities designed for the command and control of forces and for the conduct of staff activities (command points, operational centres, headquarters etc.).

Therefore, we consider it appropriate that at the strategic command echelon should function, in peacetime, crisis situations and at war, the Romanian Armed Forces Headquarters (Romanian Armed Forces HQ), providing the infrastructure elements and the facilities that are necessary for the Romanian Armed Forces Command to exercise the forces command. The English designations support the working hypotheses regarding the adaptation to the systemic architecture that exists in the Euro-Atlantic area. The Romanian Armed Forces Command should carry out all the activities and measures aimed at planning, organisation, coordination, execution and evaluation of military actions in compliance with national and international laws into force, the laws of armed combat, the set operational procedures and standards, and should develop *Military Strategic Guidelines*. The structural design of these components of the command and control system should comply with the agreed principles for achieving an operational architecture that allows for carrying out the missions in national and multinational context[9].

To initiate the planning process, the Romanian Armed Forces Command will develop and transmit the Initiating Directive in response to the political directive received from the Supreme Council of National Defence (SCND) to:

- identify the command and control concept;
- set the main milestones for own forces engagement;
- organise the theatre of operations.

Thus, the Romanian Armed Forces Command transmits the first milestones of the military response for starting the military operation planning process and provides the support element necessary for subordinate echelons for their early warning about the situation and the early start of planning processes.

[9] See http://www.nato.int/shape/graphics/about/organizational800.jpg

To analyse the mission, at the Romanian Armed Forces Command level, the following elements should be mainly considered:

- the presentation of the general situation that has led to the current situation; the own and enemy forces; the enemy intentions and capabilities;
- the SCND intent and objectives; own forces mission and the international political-military framework in the area of strategic interest, especially on the flanks of own disposition; estimates of the military situation future developments; the definition and formulation of support and other needs required from the SCND;
- the Commander of the Romanian Armed Forces Command intent and objectives – directing the subordinate echelons to achieve the military objectives; the clear definition of some achievable objectives in order to ensure their convergence with the ultimate strategic goal;
- the criteria to estimate victory – establishing some indicators to estimate the military campaign final success;
- the premises of the operation – compensating for own weaknesses by realistic and achievable premises of the operation; the involvement of the coalition or the Alliance partners in achieving the campaign objectives;
- the constraints and limitations in the planning process – exclusions (e.g. preventive offensive interdiction); other pre-established data (e.g. offensive is launched starting...); geography; environment, other temporal milestones;
- the centres of gravity – identifying and establishing them in compliance with the concept of operation; the specific operational elements to destroy the enemy centres of gravity that cannot be approached directly; intermediary stages to achieve the objective; taking into account own centres of gravity for defence planning;
- the analysis of own forces strengths and weaknesses – identifying, in relation to the enemy, the elements that differentiate as far as the forces capability is concerned;
- the planned missions.

Based on the conclusions of the analysis of these essential elements, the Romanian Armed Forces Command develops the concept of strategic operation, which is submitted for the SCND approval and represents the basis for developing the *strategic directive*. This should take into account the current information on developments, the political and military requirements received from the SCND and the Romanian Armed Forces Command commander specifications.

We appreciate that, during the development of the strategic directive, the permanent exchange of information between the different departments of the Romanian Armed Forces Command, and the timely identification of potential problems to solve or overcome them by adapting planning are necessary. If massive deployment of forces is expected, the stages of this activity are established in order to early inform the Land, Air, and Naval Forces Commands as well as the Joint Logistics Command, which, in turn, should adopt their own coordination measures.

The review of the directive together with coalition or alliance partners should represent, in our opinion, a new distinct phase of the operational planning process. The evaluation of the strategic directive in national and multinational context is a highly complex process, in which *"independent"* (who have not been involved in its preparation) experts can be involved, through tactical *"games"*, including computer simulation, and even large-scale exercises when there is enough time.

In the variant proposed in this article, at the operational level, command is exercised by the Land, Air and Naval Forces Commands (in prospect by the Special Forces Command). They plan and command campaigns based on the Romanian Armed Forces Command *Strategic Directive*, which may transfer the command authority to the operational echelon (OPCOM), depending on the specifics of the operation, to the commander of one of the armed forces services, the other commanders being operatively subordinated to this commander, providing the necessary support to meet the goals of the campaign in a joint context. For this purpose, the Headquarters of the armed forces services should include the facilities and infrastructure elements required for deployment in theatres and for generating the planning, coordination and inter-service liaison modules.

If we consider the situation in which the command authority at the operational echelon is assigned to the Land Forces Command, the *Strategic Directive* may establish missions and forces whose command is not delegated to the Land Forces Commander, but is exercised by the service that subordinates the engaged forces. They may be, for example, the air attacks in the depth of the enemy disposition, some strategically important missions executed by the Special Forces, the groups of forces in the strategic reserve, as well as other missions that are specific to operational echelons as follows:

- the Air Force Command to ensure the air space management and control, and to implement the decisions related to the employment of the Air Force, in compliance with the operation plan and the situations that emerge.

➢ the Naval Forces Command to ensure the maritime space management and control, and to implement the decisions related to the employment of the Naval Forces, in compliance with the operation plan and the situations that emerge.

➢ the Joint Logistics Command to ensure the command of logistics for joint operations.

Simultaneously, the Air and Naval Forces Commands should support the Land Forces Command to establish the joint task forces, and to plan and execute their missions, which entails the participation of staff modules in the Land Forces Command.

We consider that this command and control option provides some important advantages as follows:

❖ Provides the strategic echelon with greater flexibility regarding the command and control of forces because it can plan operations specific to one military service, in a joint, multinational context, as well as missions under direct command, without requiring changes in the force structure or in the chain of command and control.

❖ Allows the maintenance of a single structure for the command and control of forces in peacetime, crisis situations and at war.

❖ Facilitates the participation with forces to implement the Alliance operational plans and to fulfil the national responsibilities.

❖ Achieves a significant reduction in the number of commands, shortening the chain of command and the reaction time to counter threats.

Thirdly, the Romanian Armed Forces Command would subordinate the commands that deploy forces, which would allow it to assume and easily fulfil the national responsibilities. Therefore, the national authority on the forces participating in multinational operations would be exercised hierarchically by the Romanian Armed Forces Command. Thus the delegation or transfer of authority of the participating forces between different echelons of the Romanian Armed Forces would not be necessary. This approach would allow the application, in national context, of clear subordination and re-subordination relations between commanders and subordinate forces, clearly designating a single command line in peacetime, crisis situations and at war.

Fourthly, it ensures the continuous and direct involvement of all central structures in planning the resources that are necessary for the engaged forces to meet the set operational objectives. From this perspective, the Romanian Armed Forces Headquarters should reunite, besides the Defence Staff, the departments and directorates in the composition of the Ministry of National Defence, which significantly contribute to executing all the activities and measures to implement the policies related to defence resource management and armament planning.

Operations structures represent critical elements at the level of operational and strategic echelons commands whose organisation should allow the conceptual construction in this paper. To this end and in compliance with the already mentioned modularity principle, operational echelons commands should have, at the operations structures level, operational centres that should consist in the joint form of a Joint Operations Centre to ensure the continuous monitoring and to allow the preparation of reports and summaries for commanders, as well as of combat logs. They should have in their composition modules for land, air and naval operations that allow the actions coordination and the armed forces services support.

Conclusions

We consider there are several factors that determine the development of command and control systems whose analysis will allow the prioritisation of efforts on directions of strategic importance to modernise the armed forces. Moreover, we should focus our attention on assessing the problems at the operational echelon whose national visibility has diminished while its international role has grown steadily in recent years.

We are witnessing an unprecedented development of the procedures for the transfer of authority by adopting, in the national command and control systems, some elements in the international practice, essentially aimed at providing commanders with limited authority, which has implications relating to the emergence, in the dynamics of conducting combat actions, of some limitations regarding the exercise of the command act, with effects on the proper development of the operation.

The development of new operational concepts is essential to formulate appropriate responses to security challenges. Detailed practical arrangements and avoidance of duplication as far as capabilities and operational elements are concerned represent key elements of the operational architecture since the beginning of the 21st century.

The presented approach operates a substantial reduction in the number of commands in the command structure of our armed forces and it is not aimed at creating new command structures but at generating command and control capabilities following the structure of the existing ones, without diminishing their ability to carry out the basic missions related to national and collective defence.

The application of the mentioned principles to establish the command and control operational echelon entails the use of a modular systemic architecture for the establishment of the armed forces services commands, enabling joint actions in the context of national defence from the perspective of a command that commands or supports the joint operation.

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THE STRATEGIC CONTEXT OF THE ROMANIAN ARMED FORCES DEFENCE PLANNING (II)

Colonel Dr Crăişor-Constantin IONIŢĂ

The fundamental mission of the Romanian Armed Forces is to defend national interests, in keeping with the constitutional democracy and democratic civilian control over the military. The Romanian Armed Forces must be prepared to prevent, deter and counteract a possible aggression against Romania and its allies.

From the military perspective, Romania is a major military power in the Southeastern flank of NATO. This is particularly important in the equation of regional stability, when it is taken into consideration the purpose of the military reforms and the experience of Romanian units in operations under NATO command.

Keywords: *Romania's Military Strategy; Programme for Government; Pooling & Sharing; White Paper on Defence*

The *Programme for Government* is the second strategic document that provides the security and defence institutions with the national resources needed for performing the tasks entrusted by the *NDS*. It has a four-year forecasting and is published in *Monitorul Oficial (Official Journal of Romania)*, Part I. The current Programme appeared in no. 877 of 21 December 2012. The Programme has an entire chapter – Chapter 5 *"Defence"* – dedicated to the characteristics of the international security environment and how it affects the national defence policy. Moreover, the programme sets the courses of action for those structures involved in national defence.

As stated in the Programme, *"Defence Policy of the Government of Romania in the period 2013-2016 will ensure strategic continuity issues on the NATO, the EU and Strategic Partnership dimension, particularly for the 21st century's Strategic Partnership with the US, will generate the increase in operational capacity of forces, and will ensure implementation of a human resource management model for the development of professional motivation and career development"*[4].

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[4] *Programul de guvernare 2013-2016,* published in *Monitorul oficial* no. 877 of 21 December 2012, Part I, p. 5.

Beside the two fundamental strategic documents described in the first part of this article, the law specifies the existence of sectoral and departmental strategies, such as the *White Paper on Defence* and *Romania's Military Strategy*, which take into account NATO's Strategic Concept specifications and similar strategic EU documents.

The *White Paper on Defence* clarifies the internal and external actions for Romanian institutions with responsibilities in the national defence sector. The Romanian foreign policy agenda is based on the participation in the European project, on the NATO membership adapted to the challenges of globalisation and a strong transatlantic relationship. It sets national defence objectives and specific directions to fulfil them, establishes missions and tasks for the Romanian Armed Forces and provides adequate defence resources to accomplish them.

The document is in the Ministry of National Defence (MoD) responsibility, which must draw it up within six months after the approval of the Programme for Government and is subject to debate in the Romanian Parliament. It is valid for four years. The current version was completed by the Ministry of National Defence and endorsed within the SCND on 17 June 2013. As it was requested in the current Programme for Government, this version of the *White Paper on Defence* will integrate aspects contained in the *Strategic Defence Review (SDR)* and the *Multi-Annual Programme on Restoring the Romanian Armed Forces Combat Capacity in the 2013-2016 Timeframe and in the Future until 2022 (MAP)*, as follows: • military capabilities to meet the needs of the military missions, on levels of readiness; • inventory of military capability gaps; • the concept of restoring/developing military capabilities; • investment programmes (MAP) and their subsequent Procurement Programmes of Strategic Importance – PPSI.

As I stated earlier, the Strategic Defence Review process assists the development of defence planning documents at departmental level, namely the *White Paper on Defence* and the *Military Strategy*. *SDR* is conducted in two stages, as follows: • the Strategic Defence Review will establish minimum military capabilities (MMR) and the adequate political-military level of ambition (LoA), based on the international security environment assessment, short time evaluation of possible military risks and threats and short- and medium-term budget forecasts – the result of stage I is a new force structure; • Force Structure Implementation Plans – the result of stage II is to implement a National Force Structure/Reviewed STAR.

Romania's Military Strategy is the basic document that expresses the military objectives and fundamental options of the defence policy, sets strategic directions for the development of the Romanian Armed Forces, their missions and establishes ways in which they will fulfil their military role, as stipulated in the *National Security Strategy*, the *Programme for Government*, the *White Paper on Defence* and the *NATO Ministerial Guidance*.

The fundamental mission of the Romanian Armed Forces is to defend national interests, in keeping with the constitutional democracy and democratic civilian control over the military. The Romanian Armed Forces must be prepared to prevent, deter and counteract a possible aggression against Romania and its allies.

Romania's Military Strategy transforms the defence policy objectives of the *White Paper on Defence* into military ones. The current strategy is still being drafted and should be completed by the General Staff three months after the approval of the *White Paper on Defence* and submitted for approval to the SCND in the third trimester of 2013.

The Military Strategy is valid for four years and will include SDR elements concerning the doctrine, training, command and interoperability aspects as well as elements from the *Concept of Restoring the Romanian Armed Forces Structure Operational Capacity*.

The NATO membership provides favourable conditions for our country's active participation in peacekeeping actions and regional and global security, in effectively dealing with risks and threats both classical and asymmetrical.

As a NATO member, in terms of security, Romania can count on its allies in defending its territory and national interests, yet, at the same time, it has the mission to actively participate in the Article 5 collective defence effort within NATO and other security organisations, be they regional or zonal one.

From the military perspective, Romania is a major military power in the Southeastern flank of NATO. This is particularly important in the equation of regional stability, when it is taken into consideration the purpose of the military reforms and the experience of Romanian units in operations under NATO command.

As a result, the Strategic Concept for the defence and security of NATO members, adopted at the 2010 NATO Summit, entitled *"Active Engagement, Modern Defence"*, plays a major role in the influence of the multinational context on developing national strategic documents for defence planning, in terms of both the three basic tasks set for all member states – collective defence, crisis management and cooperative security –, and the establishment of a new NATO command structure.

At the informal meeting of the NATO Military Committee (MC) held in December 2012, SACEUR presented his vision of the NATO future, assimilating it with an upgraded version of IT systems: the NATO version 1.0 is the *Cold War*; version 2.0 is the current period, characterised by an unprecedented enlargement of the Alliance, out-of-area NATO-led operations, huge financial and personnel costs, while version 3.0 will be in the future, with a time horizon of 3-5 years, closely related to the *"Connected Forces Initiative" (CFI)*, concept launched by NATO Secretary General at the *2011 Munich Security Conference*, as an initiative designed to complement the concept of *"Smart Defence"* and which refers to the ability of allied forces to operate together, to interconnect.

Romania is interested in participating in the new NATO command structure, which entered into force on 1 December 2012. It will fill up 1 two-star/3 one-star General positions and 70 officers and NCOs posts. Our military interest is directed to the strategic and operational command HQs.

Within the process of gaining EU membership, Romania's efforts pursued its own foreign policy convergence with the Common Security and Defence Policy (CSDP) – the former European Security and Defence Policy (ESDP). Romania showed its desire to become an active participant in the political dialogue within the EU and played a constructive role in the PSAC. As an EU member, Romania contributes to the political decision-making process by formulating national positions and statements and implementing EU decisions and documents. Romania complies with the international sanctions and restrictive measures imposed by the EU, the UN and OSCE. Also, our country participates in all Council working committees on CSDP.

In the current security environment, characterised by changes in the nature and complexity of threats, EU member states, including Romania, utilise this specific intergovernmental action tool in the security field to provide the EU with a global active presence.

Initially, Romania was involved in the Second Pillar of the EU – the ESDP, particularly in the civil emergency sector, becoming, in 2008, one of the main contributors to civilian capabilities (human resources and equipment) in the EU crisis management missions. To do so, the SCND meeting of 27 June 2008 adopted the *National Strategy on Civil Capabilities*. The document is primarily aimed at ensuring an appropriate response should Romanian policymakers decide to become involved in the civil dimension of an EU-led mission. Strategy fits into a broader European effort, all EU member states committing themselves to adopt such tools after the European Council of December 2008.

In the military dimension, Romania contributed to the European Battle-Groups (EU BG), along with Italy and Greece, and participated with some capabilities in EU-led operations in the Balkans (Operation ALTHEA) and the Horn of Africa (Operation ATALANTA). Starting with 2013, we also participate with military capabilities in EUTM Mali.

From a military perspective, we are especially interested into a couple of fundamental tasks, which have been introduced by the 2009 EU Treaty of Lisbon – *Clause for mutual assistance in the case of armed aggression* and *expanding the range of Petersberg tasks*.

The Clause for mutual assistance in the case of armed aggression, unofficially called *mutual defence*, is described by Article 42 of the EU Treaty. Since December 2011, there have been more political PSC meetings and joint EEAS – European Commission meetings to regulate the terms and conditions under which this clause can be activated, according to the EU Treaty. The issue has predominant political, legal and diplomatic, aspects, one of them being related to what military means and to what extent the military power may be involved in such a situation.

"If a Member State is the victim of armed aggression on its territory, the other Member States shall have towards it an obligation of aid and assistance by all the means in their power, in accordance with Article 51 of the United Nations Charter. This shall not prejudice the specific character of the security and defence policy of certain Member States. Commitments and cooperation in this area shall be consistent with commitments under the North Atlantic Treaty Organisation, which, for those States which are members of it, remains the foundation of their collective defence and the forum for its implementation" – Article 42/TEU.

Regarding the *Petersberg tasks*, they were repeatedly extended, as follows:

- Treaty of Amsterdam – humanitarian and rescue, peacekeeping missions, combat forces missions in crisis management, including peace enforcement missions;
- *Headline Goals 2010* – joint disarmament operations, support for third countries in combating terrorism and SSR;
- Treaty of Lisbon – military advice and assistance, post-conflict stabilisation.

The TEU stipulates that *"the Union may use civilian and military means for joint disarmament operations, humanitarian and rescue tasks, military advice and assistance tasks, conflict prevention and peacekeeping tasks, tasks of combat forces in crisis management, including peacemaking missions and post-conflict stabilisation. All these tasks may contribute to the fight against terrorism, including by supporting third countries in combating terrorism in their territories".* – Article 43.

Through collaboration and cooperation, any state in the region can develop policies and use common tools that enable it to decisively approach inter-ethnic and other types of conflicts, using NATO and EU standards, promoting a set of values that favours the interests of all Central and Southeastern Europe nations.

National states from Central and Southeastern Europe are able to participate in the development of a common strategy to enhance regional stability and security. In this aspect, Romania has a major contribution. The joint effort will provide consolidated and enhanced regional cooperation mechanisms, which will contribute to strengthening stability, security, trust, transparency and interoperability between participating countries.

In this context, Romania promotes enhanced cooperation with other countries in the region, identifying those mechanisms capable of shortly attracting them to necessary political decisions to ensure European and regional stability. Promoting a shared vision of security issues will help countries of the region to pooling their efforts to act together against regional threats. Moreover, the interdependence of regional states will reduce the potential conflict in the region.

In this respect, our country participates in various forms of regional cooperation (bilateral and multilateral), whose role is to enhance regional stability. The main military bilateral cooperation projects are: Balkan Countries Chiefs of Defence Conference (Balkan CHODs) – Albania, Bosnia and Herzegovina, Bulgaria, Greece, Macedonia (FYROM), Montenegro, Romania, Serbia and Turkey; Romanian-Hungarian Peacekeeping Battalion – one infantry battalion – 499 soldiers; *"TISA"* Multinational Engineer Battalion – 1 Engineer Company – 200 soldiers; Multinational Peace Force South-Eastern Europe/South-Eastern Europe Brigade of the *"Meeting of Defence Ministers from Countries in South-Eastern Europe"*, 1 Infantry Battalion – 400 soldiers, 1 Reconnaissance Platoon – 24 soldiers, 1 Transport Platoon – 32 soldiers, 1 Engineering Company – 119 soldiers, Staff Personnel – 7 officers and NCOs in permanent nucleus; Black Sea Naval Cooperation Task Group (BLACKSEAFOR) – 1 ship, determined by the mission type, 1 officer in the Operations Control Group, 1 officer in the International Military Staff; Operation Black Sea Harmony (OBSH) – exchange of information and exchange of liaison officers between the Constanţa National Centre and OBSH Coordination Centre Eregli/Turkey.

Currently, we are under negotiation with the Ministry of Defence of the Republic of Moldova on the establishment of a Joint Romanian-Moldovan Battalion *(figure 4)*.

Finally, it is worth considering the Strategic Partnerships concluded by the Romanian state with various friendly countries, which provide bilateral support in crisis situations. Through these Strategic Partnerships[5], we pay increased attention to the processes of radicalisation, terrorism funding, proliferation of weapons of mass destruction, cyber-crime. Concrete actions will be taken inside the cooperation platforms established at national and international level, between institutions involved in these domains (police, secret services, local and central authorities, the academic community, the media).

How do strategic documents interfere within the military-strategic component of the national defence? Through force planning, one of the distinguished disciplines of the defence planning, being under the direct responsibility of the *Strategic Planning*

[5] Currently, Romania has Strategic Partnerships with: USA, Azerbaijan, China, Republic of Korea, France, Italy, Japan, the United Kingdom, Poland, Turkey, Hungary.

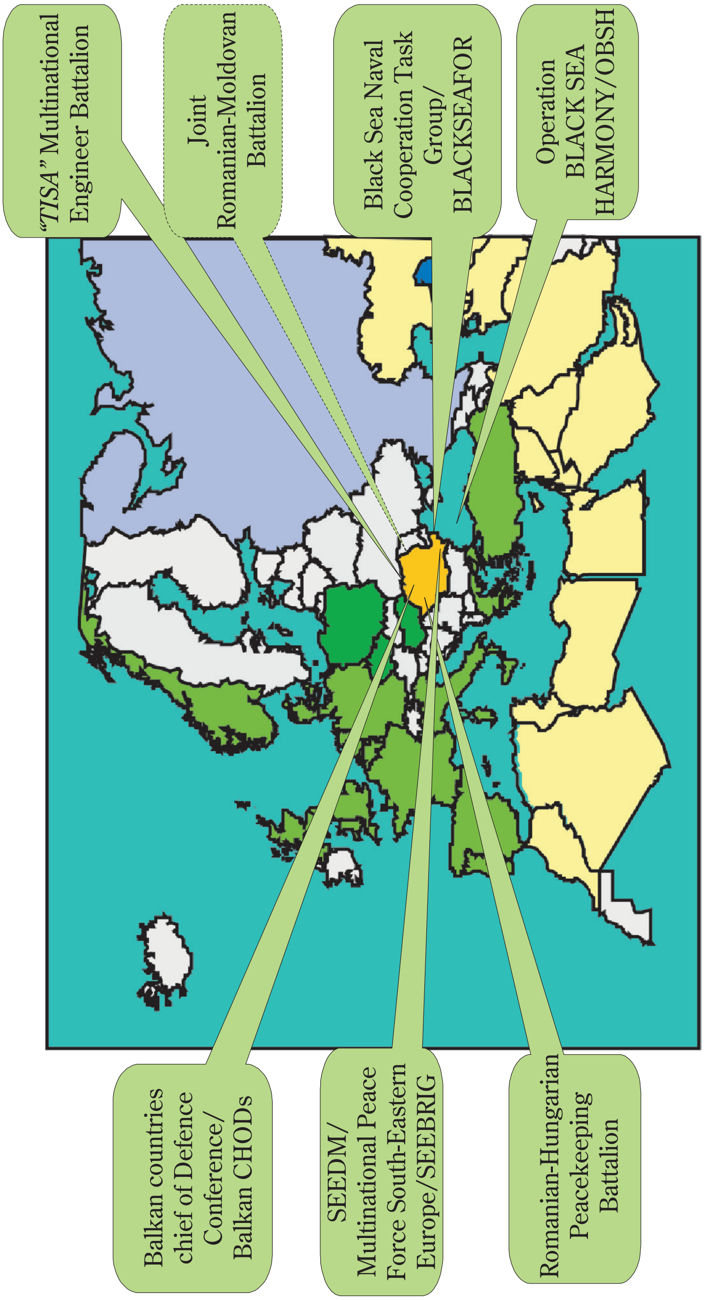

Figure 4: Romania's Participation in Regional Cooperation Initiatives

Directorate/the General Staff. Force planning results in the development of a set of minimum military capabilities to perform all assigned tasks to the Romanian Armed Forces during peacetime, in crisis and at war, from which can be made available for NATO and the EU the necessary forces for meeting national commitments.

National capabilities can be developed at national level or inside a multinational framework, by participating in NATO and EU programmes and initiatives. Romania participates, financially and with experts or facilities, in the following NATO programmes: *Allied Ground Surveillance (AGS); NATO Airborne Early Warning and Control (NAEW) System; Air Command and Control System (ACCS); Ballistic Missile Defence (BMD); Strategic Airlift Capability (SAC)*.

Within the *"Smart Defence"* initiative, Romania officially expressed its interest in participating in up to 40 out of the 149 allied projects: 15 in Tier 1, 18 in Tier 2, 7 in Tier 3.

In the same context, Romania also participates in some EU projects, as follows: European Satellite Communications Procurement Cell; European Air Transport Fleet; Forensic IED Laboratory; Land Soldier Combat Equipment; Single European Sky; Diplomatic Overflight Agreements Standardisation; Use of Alternative Energy Sources (Go Green).

Within the *"Pooling & Sharing"* Initiative, Romania has already completed the documentation for participation in seven areas: medical support, CIED, CBRN, strategic airlift, logistics support, pilot training aircraft and firing ranges. Our country also wishes to participate in projects in the field of education and training: flight simulation, logistics, CBRN, JTAC/FAC, artillery, mountain training.

As a conclusion, we can say that we have reviewed some of the key issues related to the national strategic context regarding the current changes of the security environment and the military action milestones that have determined during force planning and military capabilities development, at national level and in multinational context.

Romania's security and defence interests are inextricably linked to the regional and global ones and the principle of unity of purpose is mandatory in the future Romanian integration into NATO and the EU, especially in sizing forces and complementarity of shared resources. As a final result, achieving decision superiority inside the military-strategic component ensures the fulfilment of all Romanian Armed Forces' assigned missions and tasks.

Developing modern, high-tech, flexible, deployable, sustainable military capabilities and achieving decision superiority will influence the operations planning process at strategic level, including the effect-based planning one and the advanced planning process, especially when there is not enough time for detailed planning.

C4ISR INTEROPERABILITY CONCEPT AND PLANNING REQUIREMENTS IN NATO AND ESDP CONTEXT IN THE MEDIUM AND LONG TERM (II)

Colonel Dr Mihai BURLACU

The author continues the presentation of the issues related to interoperability planning and requirements. Given that the key factors influencing, in the future, the necessary support to effectively exercise command are globalisation, flexibility, scalability and increased sophistication of deployed capabilities, and that interoperability is a set of essential requirements to support the defined information flows between the diverse actors that are present in theatres of operations, the author concludes that the application of the network-enabled capabilities principles highlights the necessity to review the planning and assessment strategies to coherently and unitarily implement new information management techniques.

***Keywords**: CIS; strategic network; C4ISR; interoperability; network-enabled capabilities*

CIS/C4ISR Interoperability Concept and Planning Requirements

The most important aspect that characterises the operations conducted especially in a land based environment refers to the diversity of operational functions that are present in the theatre and their need to manage a huge amount of information, upon which they are dependent, in the easiest way. Thus some key factors that, in the future, will continue to influence the required support for the effective exercise of command and control are: globalisation, flexibility, scalability and an increased sophistication of deployable capabilities. Therefore, the ability of network systems and services to meet information exchange requirements supporting an efficient and timely transfer of data should be governed by a proper management of bandwidth capacity.

Moreover, each level of interoperability focuses on an enhanced set of essential requirements to support the defined information

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flows between different actors that are present in the theatre of operations, within the static environment, C2 permanent entities, deployed forces, and the other non-NATO entities. It is therefore very important that all the involved forces should meet the requirements of agreed minimum standard profiles as far as their own CIS are concerned. The implementation of these CIS requirements at each interconnection point between NATO core network and the other entities should be robust, secure, reliable, timely, and it should reflect the appropriate level of interoperability.

It is generally accepted that an as realistic as possible definition of the essential CIS equipment layout in accordance with relevant interoperability requirements is one of the basic conditions for the effective integration of national forces in a coalition in order to participate in a NATO-led operation.

This concept aims to provide the necessary guidance, assistance and advice in order to better identify the CIS standardisation requirements based on the *information exchange requirements* and the *target architectural guidelines* for deployable NATO CIS services that are identified as being critical for the following objectives:

a. to accomplish C2 missions and perform the relevant functions associated with a NATO-led operation;

b. to exercise C2 in a land based environment;

c. to exercise C2 in a coalition in which both NATO and non-NATO entities take part;

d. to achieve the maximum level of interoperability.

The CIS/C4ISR interoperability concept also describes the key principles of providing NATO CIS services to support the operations conducted in a land based environment. The physical layer developed to extend the core communications services is depicted in *figure 3* consisting of:

a. *Wide Area Network (WAN) Communications System*, including Transportable Satellite Ground Terminals (TSGT) deployed in the theatre, Satellite Ground Stations (SGS) to interconnect with the static networking environment, and the network nodes to implement Deployable CIS (DCIS).

b. *DCIS nodes* installed in the command centres supporting the user domain (Points of Presence – PoP) and the Joint Control Centre of the system within the static network, providing the network and services management (EMS), and also the permanent locations of DCIS in the preparation phase of the future mission.

c. The required connectivity for the networks of the national units deployed in the theatre. Each DCIS node should provide a point of interconnection with national networks. The modular element intended for this objective is identified as *the interface with national modules (INM)*. An INM represents a solution to implement the level 2 point of interoperability presented in *figure 4*.

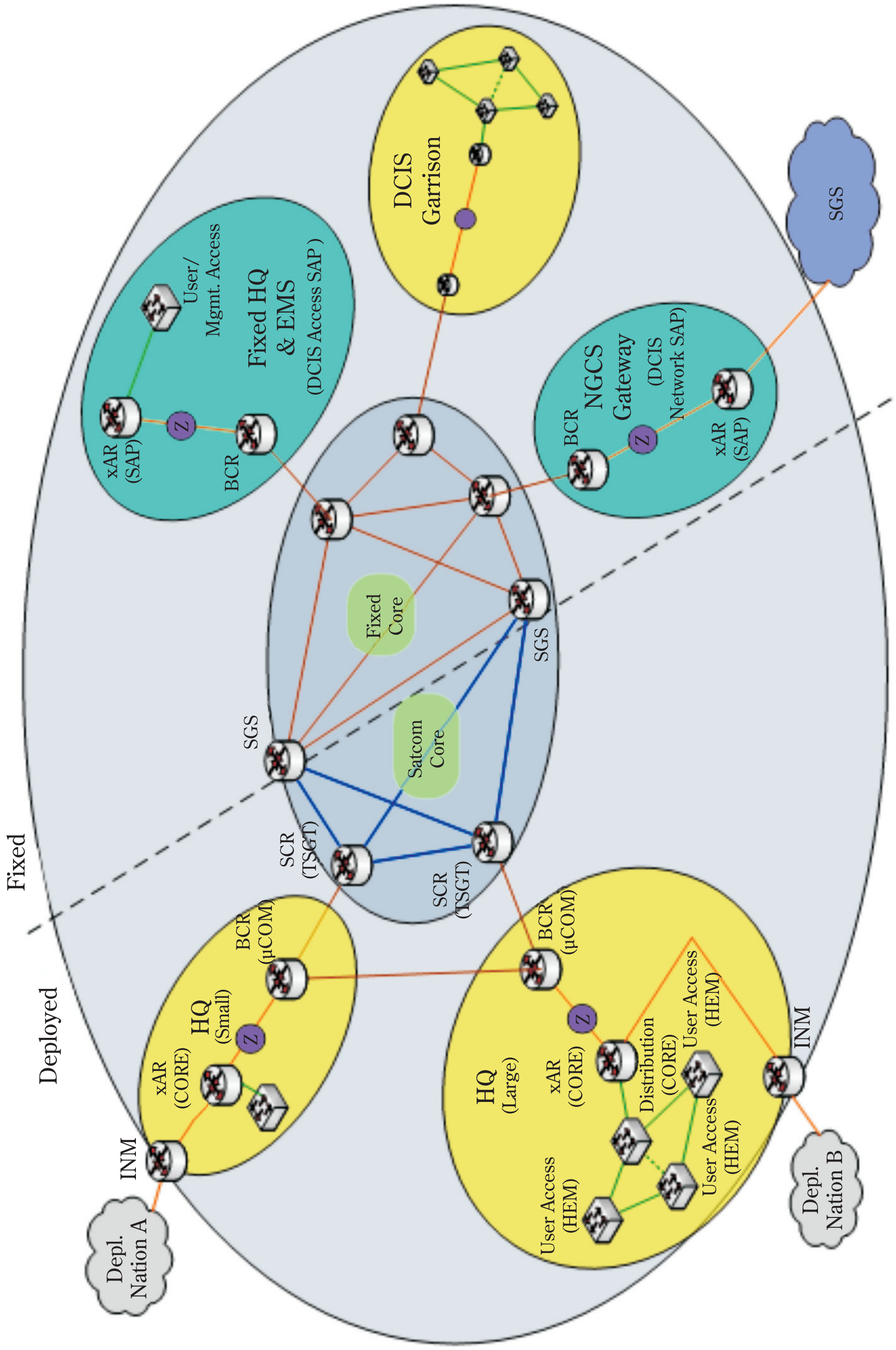

Figure 3: The physical layer developed to extend the core communications services implementing the DCIS as part of the main NATO network[10]

[10] According to AC/322-WP(2011)0022 – MC 593/1 v.2.0, *Minimum Level of C2 Services Capabilities in Support of Joint NATO Operations in a Land Based Environment*, Brussels, 2012, p. 22.

d. The connectivity with other entities and networks in the static environment is achieved by NATO General Communications System (NGCS) service interfaces within DCIS to provide interoperability services for the end users both in the static environment or deployed in the theatre of operations.

Considerations and Options related to Interoperable CIS/C4ISR Services Implementation

The national capabilities designed and planned outside the NATO process or those implementing additional national requirements should include the same technical interface solutions for the identified essential requirements, given their particular impact on the mission overall effectiveness, even if NATO recommendations are not mandatory.

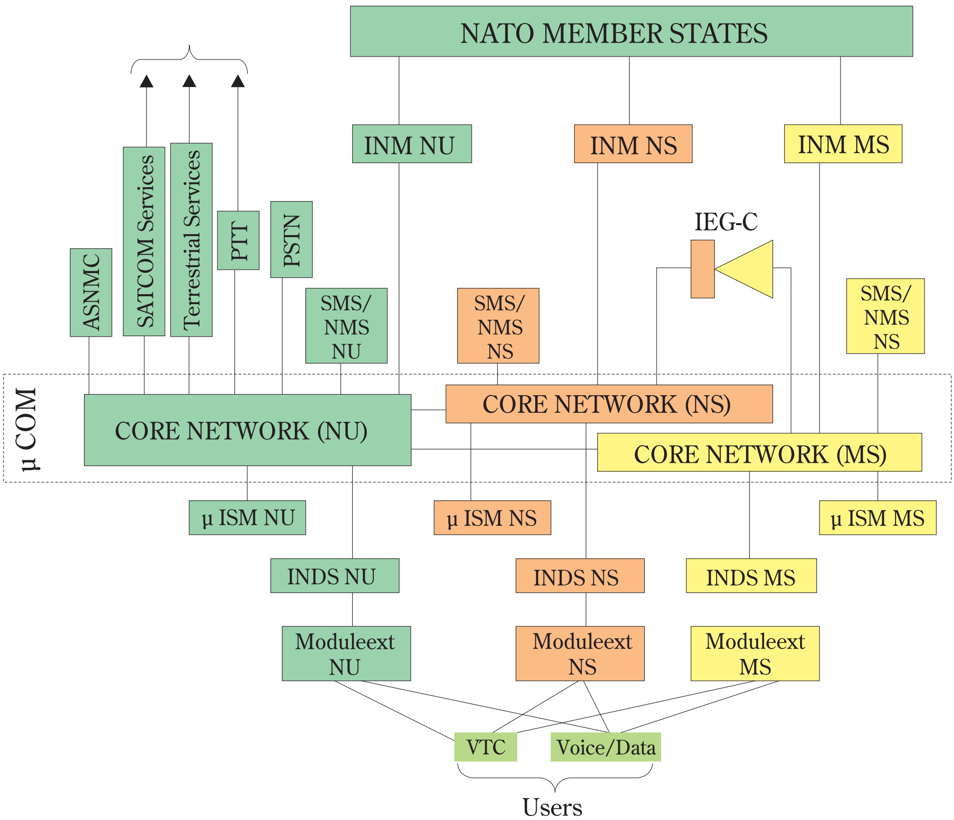

Figure 4: DCIS node notional structure[11]

[11] In AC/322-WP(2011)0022 – MC 593/1 v.2.0, *Minimum Level of C2 Services Capabilities in Support of Joint NATO Operations in a Land Based Environment*, Brussels, 2012, p. 24.

ASNMC: Advanced SATCOM Network Management and Control System
IEG-C: Information Exchange Gateways for Scenario C (MS-NS)
INM: Interface with National Modules
μISM: Micro Information Services Module
PSTN: Public Switched Telephony Network
INDS: Intra-Node Distribution System
μCOM: Micro Communications Module
PTT: Push-to-Talk leased services
SMS/NMS: Service/Network Management System

The DCIS node is the core of NATO deployable network. *Figure 4* shows the generic modular structure of a DCIS node. It assures, according to NATO eligibility criteria for the specific deployed command entities, the physical connectivity layout and the access to the NATO networks and security domains *(NATO Secret, Mission Secret and Unclassified)*.

A DCIS node should provide the main services of the *Bi-Strategic Commands Automated Information System*[12] and the specialised services infrastructure for the functional areas (FS), the data distribution capabilities in local area networks (LAN), as well as the terminal equipment for the end users. Some networks and services instances and management functions could be also included in the configuration of the specific node, depending on the assigned C2 functions. Within DCIS node are developed the external interfaces required to access WAN services as well as the ones designed for the local points of interconnection with the national collocated deployable networks, through INM specialised modules.

Commercial communications and LOS services are provided depending on their availability, and HF radio communications systems could be also provided at each PoP, without being integrated into DCIS.

Figure 5 illustrates the way a C2 entity deployed by (national/multinational) *NATO Force Structure (NFS)* can connect to a NATO DCIS PoP. It is considered that the national/multinational unit should provide a secret network domain and an unclassified network domain, while having the necessary means to ensure connectivity with its own *national strategic network*.

The access to the wide area network (WAN) is provided through the designated communications systems based on satellite or direct visibility broadband communications.

In order to achieve a federation of networks, NATO and NATO nations should be permanently prepared to meet the gradually increasing requirements

[12] ***, Bi-SC AIS – *Bi-Strategic Commands Automated Information System* – System funded jointly within NATO capability packages.

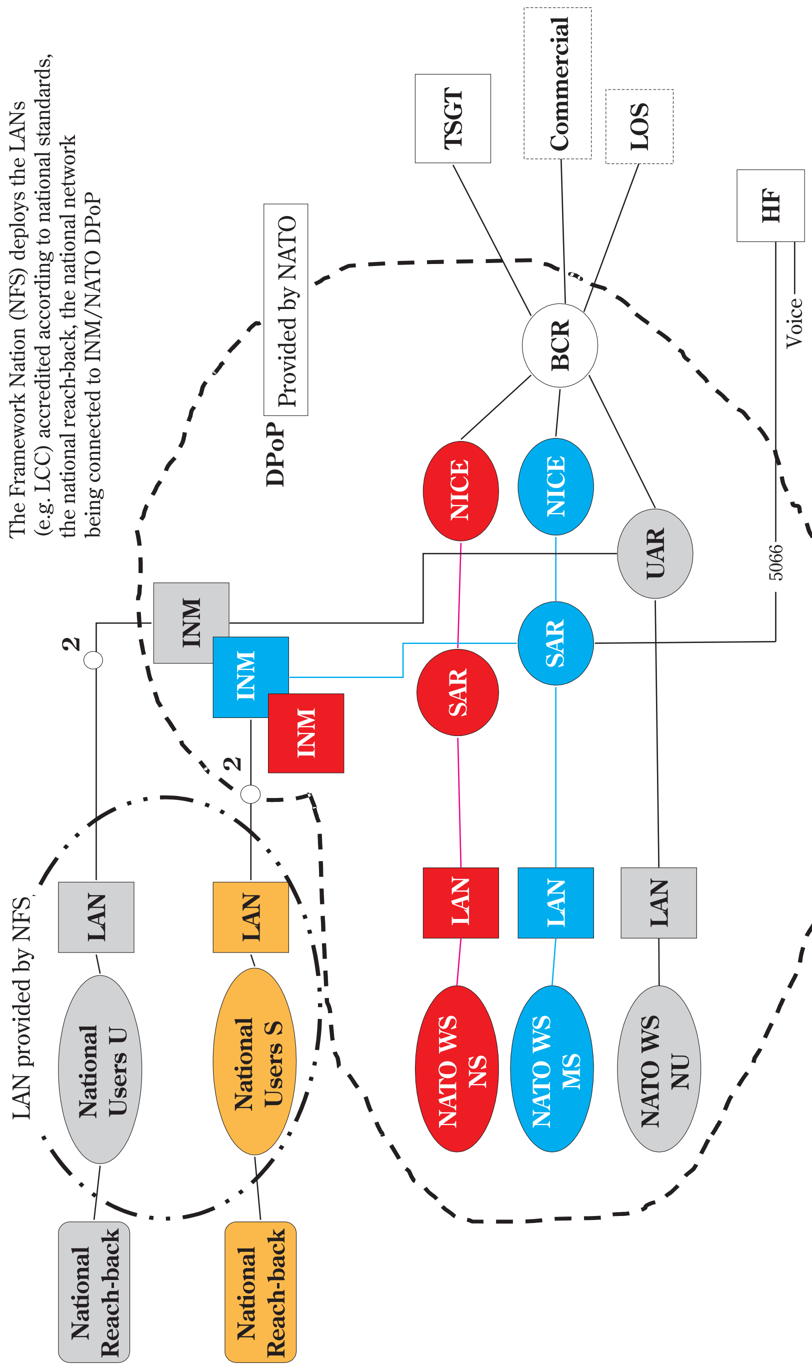

Figure 5: Interconnection of a NATO force structure component command, provided by a framework nation, with a NATO (DCIS) PoP via INM[13]

[13] In AC/322-WP(2011)0022 – MC 593/1 v.2.0, *op. cit.*, p. 25.

related to the amount of bandwidth, including the requirements to preserve the resilience and redundancy objectives.

Line-of-sight (LOS) systems are mainly involved in assuring the PSTN connectivity to WAN, as well as the extensions of the radio coverage and connectivity services to some other command entities that are collocated/located in an area of up to 60 km.

HF radio communications systems delivering voice and data services capabilities are additionally employed to increase redundancy and to support the data traffic that does not need to be assured in real time.

When available in the theatre, PSTN (commercial electronic communications) services should be also leased from local operators.

All the above-mentioned WAN services are provided under NATO supervision. Therefore, the requirements related to interoperability with national units are those identified at interoperability point no. 2, illustrated in *figure 5*.

Each DCIS node may provide access services to the *NATO core network* for the entitled elements in the national collocated networks. INM interface represents a generic technical solution that may be adapted to the relevant set of services and to the access requirements specific to the identified national networks security domain. The services that can be provided over INM are voice, VTC services, as well as a broad range of data services.

Robust, efficient and effective communication networks represent the foundation for the development of the concept of network-enabled capabilities. Data networks should provide the necessary support for different user communities and their specific security requirements. They may sometimes require different network security domains but, ideally, they are based on the use of common infrastructure. NATO current security requirements specify three network security domains that are operated at each PoP, depending on the definition of information exchange requirements.

NS domain assures the full implementation of the security services that are vital to facilitate the information exchange, the implementation of specific policies, as well as of other network functions supporting the information management dedicated to NATO forces command structure. Thus certain IERs can be delivered only through the access to NS domain. However, the impact of such infrastructure is minimised as much as possible in the theatre, the access to this network domain being mainly assured by the mission secret domain.

MS domain assures the implementation of the increasing requirements entailed by NATO coalition operations, related to an information exchange mainly based on a mission-oriented network, which allows non-NATO entities to access the C2 resources and services that are essential to carry out their own tasks. They are estimated together with the definition of gateways between MS and NS domains designated for the exchange of critical information. An information interface in the static environment is defined to diminish the deployment of separate NS infrastructure in both static and deployable environment. However, in the case of autonomous operations and in order to optimise transmission services and resources at WAN level, the interfaces in the theatre may be implemented where they are required following a thorough analysis. Until some appropriate industrialised interfaces are implemented between NS-MS domains, the establishment of some MS enclaves in the fixed infrastructure domain is recommended.

Unclassified (U) domain is intended for information exchange with other user communities, such as those belonging to NATO external entities participating in the operation, the support for activities aiming public affairs, media operations etc.

C2 services implemented in support of operations are described in NCIA catalogue, the mission secret domain being considered the basic domain of the networks in the theatre.

Currently, C2 services interoperability is mainly achieved by using identical products or applications by NATO and the specialised systems/units that support national contributions. In the near future, the application of C2 interoperability standards (e.g. MIP-DEM for land C2) will be enhanced, being validated through an annual review programme, which is going to support a common evolutionary development towards common services/applications, implementing the agreed set of interoperability requirements based on the common operating concept.

Security Arrangements

Information assurance (IA) focuses on a key set of measures required to achieve the agreed level of confidence in the ability to protect the federation of communications and information services, in electronic or non-electronic systems, as well as in the pieces of information that are stored, processed or distributed in such systems with respect to their confidentiality, integrity, availability, non-repudiation, and authenticity. The mechanisms provided by information assurance are: cryptography, security solutions between network domains (e.g. – *firewalls*) and security management.

Cryptographic modernisation is aimed at maintaining cryptographic systems high standards while eliminating potential CIS vulnerabilities related to design or embedded in the specific technologies, applications, databases, networks and monitoring tools, also taking into account the estimated risks for joint operations with non-NATO entities.

Cyber defence has been defined in this context as the IA operational implementation, putting the IA measures and services into practice. It deals with the practice of applying technical and legal measures to protect and counter the actions that are aimed at cyberspace in general, within the remit of the digital environment where the static and deployable communications and information systems reside, environment in which operational military personnel and information systems coexist, and which covers all the aspects that are specific to online activities.

The problem of providing some solutions to achieve information exchange interfaces has been the EU and NATO member states concern for many years. It is considered that the main elements of information assurance have to allow their perfect integration in the general architecture in order to meet the information protective objectives not only in the static environment but also under mobility conditions. The aim of these mechanisms is to assure that appropriate information can be provided to those who need it in a timely manner, and that the information is credible. The harmonisation of the *"duty to share"* with the *"need to know"* principles epitomises this intention. It is thus stated that policies, procedures, services and systems should be developed and implemented with an inherent capability to share information while applying the necessary security measures to assure that only authorised users can access the required information. In the short term, the implementation of IP encryption solutions and the optimised infrastructure for key management meet the current communications security requirements. In the medium term, the public key infrastructure (PKI) and XML technologies may facilitate the implementation of some dynamic schemes to access information, based on the functional role and the security and information policies. One of the major challenges is represented by the ability to implement an interoperable PKI infrastructure and an identity management scheme to support information access. The rapid technological development in the above-mentioned areas is a prerequisite to meet the long-term ambitions related to information assurance, in line with the concept of *"content-based information security"* where information is protected at the *"information object"* level, and access is controlled based on the user identity and the role the user plays in the joint operation. Performances in the field of cryptography, the implementation of new solutions related to cryptographic management, and the decisions of quick access based on policies require not only major technological changes but also a cultural change.

Requirements Preparation and Evaluation Process

NATO Response Force (NRF) specific requirements are determined by its posture as a permanent force structure able to respond at short notice to carry out specific missions, particularly in a hostile environment, where the crisis is estimated to escalate rapidly, being likely to turn into a high-intensity conflict.

Personnel training to implement C2 services should be carried out permanently and properly funded. There are different forms of both individual and collective training of CIS specialists and users such as: general training to enhance operational capability in national and international environment, exercises, training of staff users – *Battle Staff Training*, specialised exercises (CISEX), staff exercises (CPX) etc.

The validation of the requirements regarding the implementation of C2 services and, implicitly, of the information exchange requirements is part of the NRF general validation and certification process. The following main activities are carried out to certify DCIS and national-related C2 services[14]:

a. The involved nations carry out internal evaluation and perform preliminary certification activities, according to the set of technical requirements outlined in MC 0593/1 guidelines.

b. In the next phase, NATO and the nations are expected to test their own systems addressing a jointly validated technical evaluation platform, e.g. IETV[15] (DCIS evolutionary testing platform), or equivalent national/multinational assessment systems.

c. Additionally, it is recommended to take part in technical interoperability tests organised in a multinational system, such as in interoperability testing exercises (e.g. CWIX[16] or *Combined Endeavor*).

d. C2 support services final certification and validation is performed during NRF CIS training exercises, currently – *Steadfast Cobalt*.

NATO nations are encouraged to regularly take part in the exercises and events that allow testing, evaluation/experimentation and validation of national systems interoperability, even if they are not involved in the force generation process (NRF).

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[14] General principles and further guidelines regarding CIS certification process and its technical details will be drawn up within TN 1174 review process.

[15] IETV – Interoperability, Evaluation, Testing and Validation – Platform to evaluate, test and validate interoperability.

[16] CWIX – Coalition Warrior Interoperability Exercise – Exercise to test, evaluate and validate C4ISR interoperability.

Conclusions and the Way Ahead

The dynamics of the requirements in the operational environment reflect, mainly, the political level of ambition of the Alliance and NATO/EU nations, having an impact on the command and control concept and planning requirements at strategic and operational level. Moreover, the application of the *network-enabled capabilities* principles highlights the necessity to review the planning and assessment strategies that, currently, more than ever, target the new corporative and comprehensive approaches to a coherent and holistic implementation of new information management principles, technologies, enterprise services and appropriate training for the staff and technical personnel involved in future NATO/ESDP joint, multinational operations.

Romania and other NATO/EU member states are in different stages of a process that is aimed at taking new steps in the implementation of interoperability solutions, investing progressively in the development of the C4ISR capabilities that meet the standardisation principles and profiles consensually agreed in NATO. NATO recommendations are pursued to consolidate the implementation of national maturity models, which reflect our own level of ambition that lies at the basis of C4ISR capability development process in national environment. The baseline of these capabilities is constantly reviewed, tested and validated in order to be upgraded to the required interoperability standards. In this context, a special role is played by the use of NATO architectural framework and reference architectures that support the design and development of NATO C4ISR capability packages/modernisation programmes, alongside the permanent adaptation of national networking and information infrastructure.

The participation in an expeditionary operation in allied context requires as a precondition, that should be also addressed in the mission preparation process, the development and exercise of national interoperable command and control capabilities, using in their planning design the same illustrative scenarios, derived from NATO generic planning situations, as well as from the lessons identified and learned during the participation in operations or in interoperability testing events and exercises.

Information security in the multinational environment of joint operations requires the implementation of the Future Mission Network concept based on a joint infrastructure that allows the real-time classified information management in the entire operational environment, while ensuring the support for interaction with non-NATO entities that are increasingly present in an effect-based comprehensive approach to any operation. The accreditation of information exchange gateway solutions between network domains, able to ensure data protection, integrity, availability and confidentiality based on dynamic principles, represents an essential requirement in this regard.

The next steps are also aimed at implementing in the national environment some key NATO core and functional services/applications (FS), identified as essential to conduct NATO-led expeditionary operations. This process will be developed based on a rolling plan, in cooperation with NATO Communications and Information Agency, on multinational or bilateral bases, setting, according to our own strategies and allocated resources, the most effective measures to manage the system configuration throughout the lifecycle of these products/services, and periodically establishing the next national milestones regarding future developments.

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English version by
Diana Cristiana LUPU

ADVANCES IN MOBILE COMMUNICATIONS AND REQUIREMENTS IMPOSED ON RADIO MONITORING CAPABILITIES

Captain Dr Radu MITRAN

VHF/UHF frequency range is used by a large diversity of communications services: military, commercial FM radio, terrestrial TV channels. More standards are to be deployed during next years. LTE and WiMAX as 4G candidates, TETRA phase 2, DMR, dPMR and many more are only a few examples. All these new radio standards will add new services, among them being the increased protection against radio interception of traffic. This article aims to estimate the potential of new radio technologies for the next five years in the area of mobile radio communications for VHF/UHF frequency range and the impact of these changes for the capability of current radio monitoring systems. Commercial and military radio communications will be considered. The proper answer to these new threats for monitoring systems is Cognitive Radio Sensor. This type of advanced radio sensor will enhance analyst productivity by providing data in forms that will enhance productivity of intelligence extraction.

***Keywords**: Cognitive Radio Sensor; Private Mobile Radio; tactical radios*

The rapid development of technology and the unrestricted public access to technology have led to a radical change in the environment in which military actions are performed. Examples from recent conflicts (Kosovo, Iraq, Afghanistan) show that diverse technologies for civilian and military communications are used in the area of operations. The civilian technologies that are present in the areas of operations (cellular or satellite telephone, internet, television) can be used to perform asymmetrical actions reducing the technological gap between combatants. Technological advancement has also led to the development of military capabilities. There is a diversity of platforms currently used on the battlefield. Thus has been developed a number of new platforms for data collection: unmanned aircraft *(UAV)*, electronic warfare sensors, *COMINT (Communication Intelligence)* sensors, *ELINT (Electronic Intelligence)* sensors, NBC sensors, target acquisition platforms, C4I systems for data processing. These platforms have led to changing needs for high bandwidth communications services.

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In order to fulfil these requirements, new standards (real-time video feeds from *UAV* platforms and ground stations) have been developed while other communication services have experienced significant changes (digitised voice transmissions have caused migration from analogue to digital systems).

All these changes in the technological area demonstrate the high importance of the electromagnetic spectrum regarded as a new dimension of the battlespace. Getting control over the electromagnetic environment acts as a force multiplier and ensures freedom of action in other environments (land, air, maritime, cosmic space). From this perspective, it is justified the research on how the new technologies adopted in modern communication systems, used in military or civilian applications, can limit the ability of getting supremacy in the electromagnetic spectrum. This paper aims to identify the main trends in VHF/UHF mobile communications, with civilian and military applications, for the next 5 years (2013-2018), and to estimate how these technologies will impact on radio monitoring capabilities.

Tactical radio communications for VHF/UHF frequency range

The complexity of current military operations has imposed new requirements on radio communication systems. Most modern armed forces have initiated comprehensive programmes to transform military structures in accordance to current operations requirements. One of the major changes is to transform armed forces into knowledge-based and network-centric organisations. In this context, all battlefield platforms (land, air, sea) become communication nodes in a complex network for exchanging and processing data, network called information grid. The main goal of *network-centric warfare – NCW* is to obtain information superiority by integrating in the same network sensors, decision-makers and platforms. In the implementation of this concept lies the ability to disseminate information within the network. The information network consists of a set of nodes and links interconnecting them. Implementing the concept of *network-centric warfare* provides high mobility and real-time knowledge of the battlespace. One of the critical requirements for the practical implementation of the concept of *NCW* is to interconnect network nodes. This requires advanced communication equipment in order to ensure the necessary quality of communication services. The increase in bandwidth needs has been noticed at all military levels. The technical studies conducted[1] have identified five solutions to cover the necessary bandwidth:

- increase in the link capacity;

[1] J. Leland, P. Isaac, *Future Army Bandwidth Needs and Capabilities*, 2004.

- use of high directive antennas;
- use of efficient routing protocols;
- vertical extension of network by using aerial communication nodes;
- reduction in the bandwidth need at application level.

The increase in the communication capacity can be achieved by migration to higher frequency ranges, by improving the spectral efficiency and the power efficiency of the modulation used. Currently, most systems for tactical communications use HF and VHF ranges. Usually, the frequencies are between 2 MHz and 512 MHz. This range is shared by a large variety of military and civilian communications services: television, FM radio, air traffic control, public safety, and cellular *(CDMA450)* telephony. Moreover, the private sector seeks to extend new commercial communications services in this frequency band. Therefore HF and VHF frequency ranges are saturated, with fewer opportunities in the future to release new portions of spectrum for military tactical communications. In this context, migration to higher frequency ranges is a solution to ensure the necessary spectral resources.

The experimental communications systems developed by the *Defense Advanced Research Projects Agency (DARPA)* in the US use frequencies up to 38 GHz. For such carrier frequencies can be assigned wideband channels (hundreds of megahertz), thus being provided the support for higher transmission speeds. Thus, the probability of intercepting decreases with increasing carrier frequency. On the other hand, increasing the frequency goes hand in hand with the path loss (attenuation), so complex antennas are necessary. Migration to superior frequency bands may increase the transfer rate up to 10 times compared with the transfer rate achieved by using classic waveforms. Advanced waveforms, proposed under the *Joint Tactical Radio System (JTRS)* programme, provide higher transfer rates than conventional waveforms (*figure 1*).

The increase in the transfer rate is ensured through the use of efficient modulation waveforms with high spectral and power efficiency. Also, carriers have frequencies in a wide frequency range (2 MHz – 2 GHz for Wideband Networking Waveform).

The transfer capacity of the classic waveforms used in military applications can take values up to a maximum of 288 kbps *(Near-Term Digital Radio – NTDR)*. Comparatively, the best *JTRS* waveform reaches a transfer rate of 4 Mbps, and in the near future the transfer rate is planned to get up to 10 Mbps. However, these values are theoretically maximum values for the link capacity and, in real scenario, the increase in the link capacity also causes the decrease in the coverage area, so that additional measures are needed to plan communications networks for optimal coverage of the battlefield.

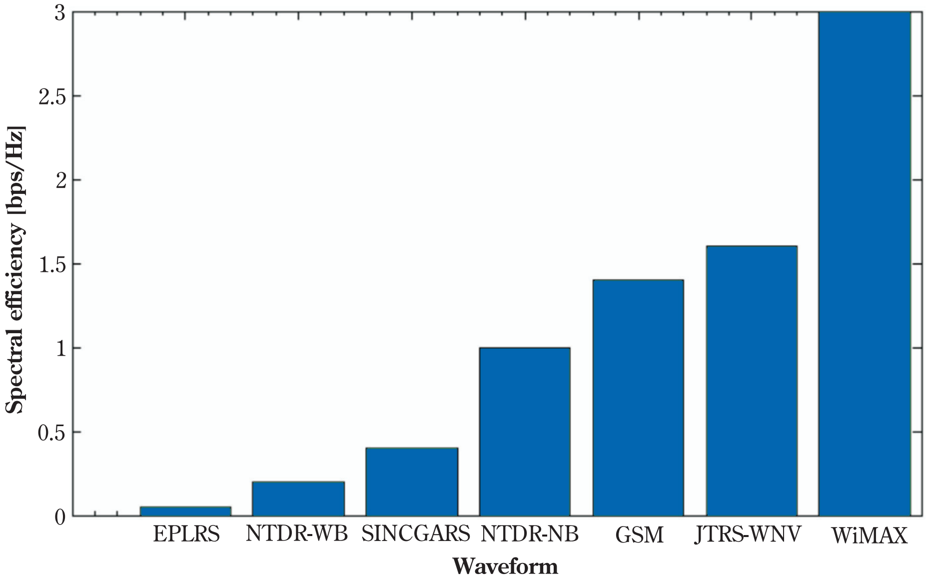

Figure 1: Spectral efficiency (bps/Hz) for military and commercial waveforms

The use of directive antennas is another solution to increase the technical capabilities of tactical communication systems. According to the results presented in Leland and Isaac[2], replacing omnidirective antennas with directional antennas is the best solution in order to increase the transfer capacity. According to the aforementioned report, the transfer rate can reach values of up to 200 times greater as compared with the transfer rate achieved by the conventional waveform. Practical results[3] demonstrate the increased capacity of the network nodes using directional antennas compared to the networks with omnidirective antennas. The relationship between the transfer capacities obtained in these two types of networks (omnidirective antenna and directive antenna) is given by $2\pi/\alpha$, where α is the directivity of the antenna *(figure 2)*. When both correspondents use directional antennas, the increase in the ratio of obtained transfer rates is given by $4\pi/(\pi\ \beta)$, where α, β are the angles of the emitter and receiver antenna directivity.

The y-axis represents the ratio between the transfer rate obtained when using directive antennas and the transfer rate obtained when using omnidirective antennas. Directivity on the x-axis takes values between 90^0 and 360^0. When using 2 directional antennas with 30^0 directivity, the transfer rate is increased by 150 times. Using directive antennas is accompanied by other benefits such as reducing the probability of interception. The signals in the direction of a possible interception

[2] *Ibidem.*
[3] P. Gupta, P. Kumar, *Capacity of Wireless Networks, Technical Report*, University of Illinois, 1999.

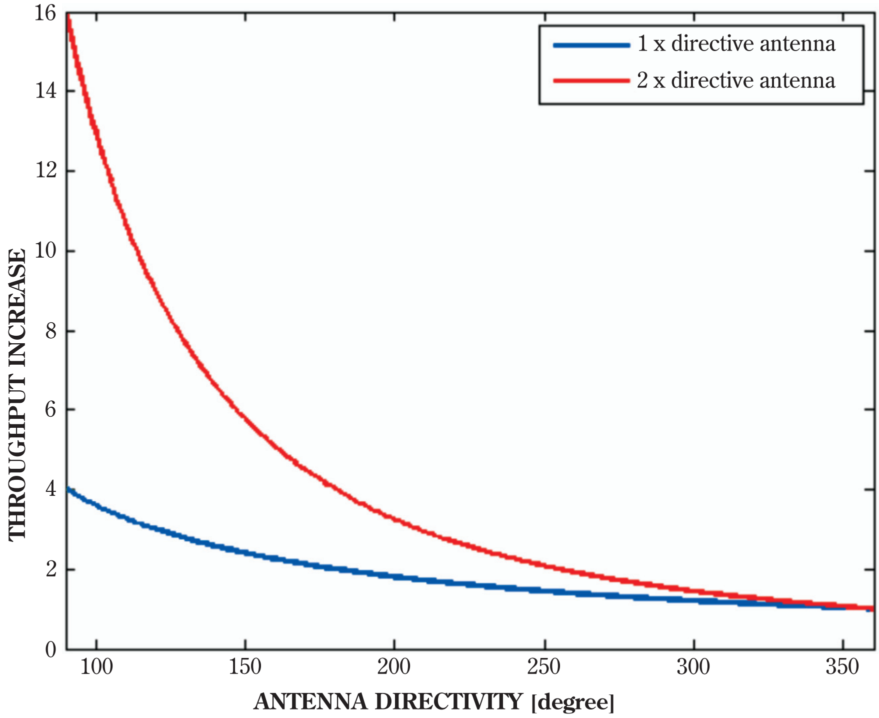

Figure 2: Increasing the transfer rate by using directive antennas for ad-hoc radio networks

system are strongly attenuated. Moreover, by using directional antennas, the interference between radio networks (co-channel or adjacent channel) is further reduced. Other advantages include reduced transmit power due to increased antenna gain, increased radio coverage, and implicitly reduced number of nodes in the network.

The implementation of directive antennas involves increasing complexity of the radio transceiver and also changes in the network protocols used for routing messages. All members of the network should know the geographical position of adjacent nodes. The results achieved during experimental test show increases of up to 186% in the transfer rate, well below the maximum value based on theoretical models. From this perspective, it is recommended to further develop algorithms and network protocols.

Commercial/Civil Mobile Communication Systems

Analogue mobile communication systems were used for most mobile applications until the early 2000s. In this category are found the applications for *Private Mobile Radio (PMR)* used by public safety structures. Due to the advantages of digital communications technologies and the decreasing price, the 2000s marked the beginning of replacing analogue systems with digital communications. The process of replacing analogue communication systems is conducted at different *"speed"* according to the type of application and the standards of the regulatory domain. It is very likely that this trend will continue during the next decade.

PMR digital mobile communication systems. Most mobile communication networks usually use radio equipment (radio access network) and fixed communication infrastructure operated by a public or private agency. For *PMR* users, these networks provide voice and data services at low speeds. Some *PMR* standards provide backward compatibility with existing analogue networks. Most *PMR* standards can operate with lower capabilities in modes independent of fixed infrastructure (direct mode of operation). The main advantages of digital *PMR* systems compared to analogue systems are given by the good quality of voice service (by using digital voice), high communication security by using custom design encryption algorithms, full-duplex mode of operation and high spectral efficiency. At the moment there are three *PMR* communication standards promoted by *ETSI (TETRA, DMR, dPMR)*, one standard (P25) promoted by a group of US standardisation bodies, and a proprietary standard *(NXED)* supported by *KENWOOD* and *ICOM*.

TETRA (TErrestrial TRunked RAdio) is the *ETSI* standard and it has been implemented in most European countries and, to a lesser extent, in South America, Asia, and Africa. The radio interface is based on *Time Division Multiple Access (TDMA)* with 4 time slots per channel (25 kHz). It offers data and voice services but it requires fixed infrastructure (base stations). It can be operated in direct mode, without fixed infrastructure, but in this mode of operation the system's capabilities are severely limited. It is the dominant standard in public safety applications in Europe and it is supported by a large group of companies providing communications equipment. Compared to other *PMR* standards, *TETRA* radio interface is among of the most advanced ones but deployment costs are among the highest. *TETRA* technology is implemented by government agencies or commercial companies that have significant financial strength to support such investments. *TETRA* radio systems have now been implemented in about 70 countries. Over 850 000 *TETRA* terminals are in use, of which about 200 000 are used in the public safety sector.

P25 (Project 25) is the dominant *PMR* standard in North America and it is widely adopted by the structures involved in ensuring public safety in the USA. The standard's complexity and costs are similar to *TETRA*. The main advantages of this standard are given by the efficient coverage of large geographic areas, the possibility of frequency reuse, the flexibility of use, the demonstrated interoperability between the equipment produced by different suppliers, high spectral efficiency (2 *TDMA* slots/12.5 kHz channel) and a large number of equipment suppliers. Most of such systems have been implemented in North America, South America and, to a lesser extent, in Asia, Africa and Europe.

NXDN (NEXEDGE) is a proprietary standard developed and supported by *KENWOOD* and *ICOM*. The technical specifications have not been transformed into an open standard, and till now it has not been supported by one of the main forums for Communications Regulation *(ITU, ETSI)*. Technically, this standard has the advantage of flexibility, including multiple operating modes and being also compatible with the existing analogue channel allocation. It can be operated both in direct mode, without any infrastructure, and in *trunking*[4] mode. The major disadvantages of this standard are given by the low number of companies that offer products that meet these specifications. *NXDN* applications using high power (and extended coverage area) are reduced due to the technical difficulties that arise by high power amplifying narrowband channels (lack of high power amplifiers, power frequency instability etc.). Manufacturers claim that the coverage area for *NXDN* systems is superior to the systems using channels with 12.5 kHz and 25 kHz *TDMA* multiple access techniques.

DMR (Digital Mobile Radio) is the digital communications standard developed and supported by *ETSI* and it is in use in over 100 countries (estimated number of *DMR* transceivers: 450 000). Based on these reports, it is estimated that currently *DMR* is the most widespread *PMR* standard. The number of companies that develop products compatible with this standard is growing. Among them are the main suppliers of radio equipment *(Motorola, Selex Communications, Radio Activity)*. The announced intention of the *Kirisun Electronics* (China) to start the production of *DMR* systems will strengthen the position of the standard in China and Asia. By using channels with 12.5 kHz bandwidth, it ensures the coexistence with current analogue systems and minimises the costs related to migration from an analogue system to a *DMR* one. *DMR* standard provides a *TDMA* radio interface with 2 slots per channel, thereby doubling the transmission capacity as compared with an analogue system. The disadvantages of this standard occur especially when operating in direct mode, radio interface switches to *FDMA*, and spectral efficiency drops by 50% compared to *NXDN* or *dPMR*.

dPMR (digital PMR) is a digital communications standard for VHF/UHF frequency range, promoted by *ETSI*. It presents the major advantage of low complexity

[4] In telecommunications, *trunking* is a method for a system to provide network access to many clients by sharing a set of lines or frequencies instead of providing them individually. This is analogous to the structure of a tree with one trunk and many branches. Examples of this include telephone systems and the VHF radios commonly used by police agencies. More recently *port trunking* has been applied in computer networking as well, see http://en.wikipedia.org/wiki/Trunking.

and high flexibility. Operating modes allow adjustment of the system, depending on the application type. *dPMR* communication systems can be operated in modes that use or do not use fixed infrastructure (amplifiers, repeaters, base stations). The coverage area and spectral efficiency are similar to those obtained by *NXDN*. This *ETSI* standard has been designed as an economical alternative to analogue systems, offering optimum price/performance ratio. This standard is supported by an alliance of 14 companies. These include *KENWOOD, ICOM, PACIFIC WIRELESS, HYTERA, AEROFLEX*.

According to statistics, it is estimated that the trend of migration to digital communication systems will continue in 2013-2018. The results of market research reveal that 64% of the agencies in charge of safety and national security plan to upgrade existing radio systems to digital ones in the next five years. *PMR* systems market segment will continue to maintain the two main categories: *TETRA* and *P25* in high-end and *DMR, NXED, dPMR* in the low-cost category. In Eastern Europe the dominant standard in public safety and national security structures will be *TETRA*. For applications requiring economical solutions, *DMR* will be the primary choice.

Phase 2 of *TETRA* and *P25* technologies will most likely be followed by a convergent development of the two standards which will be replaced by *LTE (Long Term Evolution)*. *LTE* standard will be ready for public safety application no earlier than the end of 2014 (*3GPP – LTE* release 12) and the equipment will be available on the market as early as 2018.

The low cost of equipment, the availability of multiple sources and the advantages of using digital technology make *DMR, NXED, dPMR* possible candidates for radio communication systems of terrorist networks, criminal or paramilitary groups. The major advantage of using these technologies is the independence from the commercial networks of communication, which is an important aspect for such organisations. *TETRA* and *P25* have a lower potential for use in such applications due to cost and complexity.

Cellular mobile communication systems. The first digital cellular communication systems have been implemented in the early ’90s, as the *GSM* standard in Europe and *CDMA (IS-95)* in the USA. The commercial success of these systems has ensured the premises of adopting these technologies on a global scale. Current estimates indicate that there are over 5 billion mobile telephony subscribers of which approximately 1.4 billion are 3G users. Currently, 4G-LTE mobile communication services are deployed in 126 countries (about 90 million subscribers). The global distribution of mobile communications networks is *72% - 2G (GSM, GPRS, EDGE), 26% - 3G (WCDMA, HSPA, HSPA +) and 2% 4G (LTE)*. In the next period, 4G and 3G services (at a lower level) will experience a significant development.

Radio communications protection against radio monitoring and tracking by locating signals emitted by the user equipment has been constantly upgraded together with the development of mobile communication standards.

GSM standard has a radio interface based on *TDMA* technology with 8 users per channel and the possibility of using frequency hopping. The number of channels in the frequency hopping list is limited by the number of channels allocated to one cell (2-8 channels). Each channel is 200 kHz. Each user can be identified on the radio interface, based on allocated time slot and allocated channel.

3G standard *(WCDMA, HSPA HSPA +)* uses a radio interface based on multiple *CDMA (code division multiple access)* and 5 MHz bandwidth channels. Users are identified in the radio interface based on the allocated code.

4G (LTE) uses *OFDMA (orthogonal frequency division multiple access)*. The resource allocation on radio interface (*OFDM* channels + symbols) is done dynamically. The occupied bandwidth takes values in the range 1.4 MHz – 20 MHz.

Radio Monitoring Systems

A radio monitoring system is a special receiver capable of processing a large variety of signals. The main difference compared to the classical reception system is the lack of information about the type of signal to receive (frequency and phase of the carrier, modulation, channel bandwidth, symbol rate, baseband pulse shape, protocols). All these parameters need to be estimated at the reception in order to demodulate the signal. The estimation quality and the response time determine the performance of the radio monitoring system.

Due to the advances in wireless communications, it appears that radio monitoring systems have to be upgraded to maintain their capabilities at least at the target systems level. The increased complexity of tactical communications (spread spectrum), the high mobility of subscribers, the traffic encryption on radio interface and the large diversity of standards are the main factors that increase the technological gap between current radio monitoring systems and new mobile communication systems. At the same time, data transmission occupies a growing percentage of radio traffic in a modern wireless system. The new radio monitoring systems will have to develop capabilities to intercept data traffic in addition to traditional capabilities for audio monitoring.

Due to significant differences in the radio interface, commercial cellular mobile communication systems show different levels of protection against interception and user's locating.

For *GSM*, interception and user's locating involve monitoring a variable number (number of available channels in a cell) of channels each of them with 200 kHz bandwidth. Because each user transmits its radio signals on different frequencies in different time slots, it is possible to identify, intercept and locate each user by monitoring all active channels from a cell.

3G radio access network has better protection against radio interception and tracking, compared to *2G*. Due to the use of *CDMA*, the identification of a user's associated signals is possible only in code domain. The number of codes that can be used on uplink radio interface is very large (16 million), so brute force code identification requires amazing processing capacity. Also, the channel bandwidth (5 MHz) imposes special requirements for real-time acquisition and processing systems.

4G radio interface dynamically provides the access to radio resources (*OFDM* subcarriers, *OFDM* symbols) for each subscriber. During one *OFDM* symbol duration, radio signals associated with an active user are broadcast on a limited number of *OFDM* subcarriers. The identification and user's locating are possible in the time-frequency domain. Encryption on radio interfaces is permanently activated for *3G* and *4G* radio standard.

Digital *PMR* systems provide protection against interception of mobile user traffic by encrypting signals on the radio interface. Encryption algorithms can be customised to each network thus providing additional protection. However, such systems do not have sufficient protection against user's locating. The most exposed standards are those using *FDMA* multiple access method: *FDMA-P25*, *NXED* and *dPMR*. For the digital *PMR* systems that use *TDMA*, locating users is more difficult because it requires prior timing synchronisation between the monitoring system and the network. The shorter the duration of the slot is, the more difficult locating a *TDMA* subscriber becomes. The real time acquisition and processing of digital *PMR* channel can be achieved at low cost because these standards use narrowband VHF/UHF channels (up to 25 kHz).

To meet the complex technical requirements for mobile user's locating and traffic interception for modern radio networks, we propose to introduce the concept of *cognitive radio sensor*. *Cognitive radio sensor* involves the use of latest technologies in the following areas: communications protocols, complex signal processing and routing protocols. The concept of *cognitive radio sensor* is an extension of the concept of *cognitive radio* launched by Joseph Mitola in 1998. *Cognitive radio sensor* is a software defined radio receiver that has the ability to observe the environment *(aware)*, to adapt *(adapt)*, and to learn *(cognitive)*.

Observation capabilities (aware) algorithms include the spectrum sensing capabilities. Detection of signals will be followed by automatic transmitter locating.

The method for locating a user will be automatically selected by the sensor depending on the intercepted signal features. The observation capability is not strictly limited to the electromagnetic spectrum and it can be extended to other areas such as the visible spectrum, sound, temperature etc.

Adapting capability of radio sensor requires a decision based on the data obtained through observation. Data from *RF*, thermal, acoustic, navigation sensors are integrated in order to adapt sensor response to the environment. Adapting sensor includes actions such as triggering recording when detected signals match target signal pattern or start demodulation and save the messages to a database. Adapting sensor may include software options that increase the received power by automatically switching the receiver to a directive antenna towards the target signal.

Cognitive capability involves the implementation of some forms of artificial intelligence on the structure of a *SDR (Software Defined Radio)*. Such capabilities include the ability to learn and make decisions. The cognitive capability enables the sensor to make an unlimited number of decisions.

As discussed above, a cognitive radio sensor will need to have the following capabilities:

1. To *"sense"* electromagnetic spectrum, temperature, acceleration, visible spectrum etc.;
2. To *"get the global picture"* of its environment by integrating data from previous level sensors;
3. To *"adapt"* in real time depending on the environment;
4. To *"plan"* actions by establishing options;
5. To *make the best decision* based on previously established options;
6. To *act* on the basis of the decisions made;
7. To *learn* based on capabilities 1-6.

Currently, advanced wireless sensors have level 1 capabilities (the ability to *"sense"*). Current technology will allow the integration of level 3 capability (ability to *"adapt"*) in the medium term (next 3-5 years). The development of cognitive capabilities in the wireless sensor is in initial stage. Existing technologies (processors, *DSP*, minicomputers) allow the technical implementation of these capabilities.

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The development of digital *PMR* communications, the emergence of *4G* cellular telephony and the tactical communications modernisation will be accompanied by increasing resistance to interception. The technological gap between radio monitoring systems and targeted wireless communication systems will widen leading to vulnerabilities in terms of freedom of action in the electromagnetic spectrum. To reduce this vulnerability, the concept of *cognitive radio sensor* has been introduced. The capabilities of such equipment should enable the detection, location and interception of radio signals of classical and modern waveforms. Cognitive sensors will decrease the need for human operator involvement in radio collection phase.

To develop cognitive sensors further research should be carried out in the area of feature-based detection, signal processing algorithms, spectrum sensing. Due to the high mobility of users, cognitive sensors will have to be connected in wide networks that will use cooperative sensing. So the cost of a cognitive sensor should be as low as possible in order to allow large-scale deployment. Getting cognitive capabilities for a reasonable price might be the main challenge of the future development of cognitive sensors.

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NATO MILITARY DOCTRINE AND ROMANIAN MILITARY DOCTRINE

– Compatibility and National Particularities –

Major Marius Valeriu PĂUNESCU

The study is aimed at comparatively examining the latest doctrines in Romania and in the North Atlantic Treaty Organisation in order to identify, as far as the structure and the content are concerned, some similarities and differences between the Romanian Armed Forces Doctrine and NATO Doctrine – Allied Joint Doctrine AJP 01 (D), 2010.

The fundamental idea of this approach is represented by the fact that, once doctrinal harmonisation is achieved, the adopted principles and philosophy should be properly implemented.

***Keywords**: NATO; Romanian Armed Forces Doctrine; AJP 01; JDP 0-01*

Anyone concerned with the thorough study of warfare in its different forms of manifestation has easily found that a doctrine in this field helps us meet the needs of knowledge and understanding up to a certain limit, beyond which only innovation and critical thinking can carry out improvements so that it remains valuable.

After several decades when the Romanian Armed Forces had to develop and apply the doctrine as a successful politico-ideological recipe that should and had to be strictly observed (*The Military Doctrine of the war of the entire people – the art of defeating a militarily superior enemy, the way to safeguard the sovereignty and independence of Romania, of our homeland. This doctrine substantiation by the Romanian Communist Party*[1]), starting in 1994, when Romania joined NATO's Partnership for Peace Programme, the Romanian military thinking and action could return to what they has been before communism was installed in our country.

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[1] General-maior dr. Ilie Ceauşescu, *Războiul întregului popor pentru apărarea patriei la români*, Editura Militară, Bucureşti, 1980, pp. 379-439.

In fact, Romania's stepping along the road to NATO doctrinal knowledge represented a return to the Western doctrinal spirit grounded in the two main trends in the European military thinking: the *"French School"* – built on Napoleon's principles – and the *"Anglo-Saxon School"* – built on Clausewitz's principles of war.

Without discussing the steps that have led to the reunion of the Romanian military thinking with the one existing in the European area, and knowing that the desired developments in the collective mindset do not occur instantly, in this brief study, we intend to analyse some aspects related to the content and form of the fundamental doctrine of the Romanian Armed Forces[2] as well as of the fundamental doctrine of NATO[3], using as a benchmark the fundamental doctrine of the United Kingdom of Great Britain and Northern Ireland (UK)[4], in order to identify some specific ways in which Romania and the UK, as NATO member states, have harmonised their doctrinal concepts with the Alliance operating philosophy and principles.

We have chosen the UK doctrine to serve as a benchmark of our analysis for the following reasons:

- The UK is one of the six NATO member states that contribute to the *Allied Joint Operations Doctrine Working Group – AJOD WG*, subordinate to the *Military Committee Joint Standardisation Board – MCJSB*;
- The UK has supported the development of the education and training system in the Romanian Armed Forces (the Romanian-British Training Centre[5] established in 1997, subsequently becoming NATO/PfP Regional Training Centre[6]), contributing to the enhancement of interoperability between the two states;

[2] *Romanian Armed Forces Doctrine – RAFD*, the General Staff, București, 2012.

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

[4] *JDP 0-01 Joint Doctrine Publication* – 2011, *JDP 0-01 British Defence Doctrine*, UK Development, Concepts and Doctrine Centre, Shrivenham SWINDON, November 2011.

[5] See http://www.unap.ro/index.php/ro/fsa/dmcom, retrieved on 08.06.2013.

[6] NATO/PfP Regional Training Centre was established in 1997, in cooperation with the UK, based on the Order of the Romanian Minister of National Defence no. SB/2957, issued on 26.08.1997. Initially, it was called Romanian-British Training Centre, being an independent structure subordinate to the General Staff and having the mission to *"train Romanian officers in the following fields: doctrine, command, staff and operational procedures characteristic to the British Armed Forces, compatible with NATO procedures"*. On 20 April 1999, the North Atlantic Council accredited the centre as PfP training centre. Thus, through the Order of the Minister of National Defence no. M-54, issued on 26 May 1999, the centre is assigned the mission to *"contribute to the enhancement of the military and civilian personnel training in the fields of joint and multinational military actions as well as civil-military cooperation planning and command, in campaign conditions, by using staff and command procedures, in order to increase interoperability with NATO's military operational structures, and to contribute to regional stability and cooperation"*. Starting on 1 October 2003, the centre is subordinate to *"Carol I"* National Defence University, having the same mission. Starting in 2005, the centre is called Crisis Management and Multinational Operations Department (CMMOD).

➢ The UK, a signatory to the North Atlantic Treaty since the establishment of the organisation (1949), is one of the states that has historical ties with the USA, our main strategic partner; the operational doctrines and procedures in the UK and the USA are jointly developed and tested for many years also due to the two states collaboration in ABCA Programme[7];

➢ Since the commencement of military actions in the theatres of operations in Iraq and Afghanistan, both the UK and Romania have participated with military forces in the stabilisation and reconstruction actions, the experience gained in these theatres of operations generating transformative processes as far as their national doctrinal concepts are concerned.

AJP-01(D), RAFD and JP 0-01. Considerations relating to the analysis of the form

In NATO, the procedures regarding the joint doctrines ranking, development and standardisation process are regulated by the *Allied Administrative Publication (AAP)-47 Allied Joint Doctrine Development.* This document covers the development of allied doctrinal publications for the operational level (theatres of operations), ensuring the fundamental conceptual harmonisation at joint level as well as at the functional component (branches, specialties etc.) level.

Based on NATO model, nationally, doctrines and military manuals are ranked according to four levels: *level 0* – the fundamental military doctrine *(Romanian Armed Forces Doctrine – RAFD)*; *level 1* – main military doctrines *(Doctrine for Personnel Support to Joint Operations, Doctrine for Intelligence, Counterintelligence, and Defence Security, Doctrine for Joint Operations, Doctrine for Logistic Support of Joint Operations, Doctrine for Operational Planning, Doctrine for Communications and Information Systems in Joint Operations, Doctrine for the Romanian Armed Forces Training)*; *level 2* – specific military doctrines (this category includes different fundamental concepts and principles in compliance with the doctrines derived from functions and specialties; for example each service doctrine: *(Land Forces Doctrine for Operations, Air Force Doctrine for Operations, Naval Forces Doctrine for Operations)*; *level 3* – military manuals, techniques, tactics and procedures (e.g. manuals to use combat units (infantry, tanks), combat support units (artillery, engineers), logistic support units etc.[8].

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[7] American, British, Canadian, Australian and New Zealand Armies' Programme (ABCA).

[8] Ranking levels are compliant with Order no. M 200/2007: *"Instructions on the designation, ranking, development, approval of defence planning documents, specific normative acts, doctrines and military manuals*

In the UK, military doctrines and manuals are ranked depending on the degree of generality/specificity, being grouped into three categories, according to the operations planning and conduct level: strategic, operational and tactical. Thus, the three categories encompass:

- strategic level category *(level 0)*: *JDP 0-01 Joint Doctrine Publication, British Defence Doctrine* and *JDP 01 Campaigning*[9];
- operational level category *(level 1)*: joint doctrines specific to J1-J9 functions (e.g. *Joint Doctrine Publication 5-00 Campaign Planning*); joint doctrines for specific contexts (e.g. *Joint Doctrine Publication 3-40 Security and Stabilisation. The Military Contribution*); joint doctrines related to services functions and topics (e.g. for the Air Force – *Allied Doctrine Publication Operations*);
- tactical level category *(level 2)*: manuals, techniques, guidelines, handbooks – all supporting the tactical level of operations (e.g. *Staff Officer Handbook*).

As far as hierarchy and standardisation are concerned, there are similarities and differences between Romanian, British and NATO doctrines as follows:

➢ Romania and the UK have similar systems to rank doctrines, which support the planning, preparation, management and execution of military operations both internally (nationally) and externally (in operations under the aegis of the UN, OSCE, NATO, EU, coalition-type ones).

➢ As NATO forces exist as a result of the voluntary contribution of member states, the Alliance shows major concern for the process of developing joint allied doctrines at operational level, primarily aimed at developing fundamental concepts that provide increased interoperability of forces during the Alliance campaigns. For this reason strategic and tactical doctrines are less elaborate in the North Atlantic Alliance, these levels of operations management remaining the national responsibility of each member state. If the necessity to develop tactical doctrines stems from the need to correlate own procedures and techniques with the specificity of each military capability (in the 28 NATO member states there is a large variety of equipment and combat assets, which generates less standardised knowledge needs), the necessity to develop strategic doctrines by each member state stems from political reasons, namely the values and interests contained in the security and defence strategies of member states.

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in the MND"; each level doctrines are presented for information purposes, not representing the official situation of the Romanian doctrinal hierarchy.

[9] *JDP 01 Campaigning*, although a doctrine at strategic level, it is at the confluence of strategic and operational, linking the two levels in the context of the development of modern campaigns that entail multinational and interagency actions.

➢ *RAFD*, unlike *AJP-01(D)* and *JP 0-01*, which are not subject to any security classification, being thus releasable to the internet, is *"UNCLASSIFIED"*, therefore, it is not open to the public. This fact is not entirely beneficial because:

- According to the national standards for the protection of classified information in Romania, the equivalence of national classified information to NATO classified information is: Strictly secret of special importance – NATO top secret; Strictly secret – NATO secret; Secret – NATO confidential; Job secret – NATO restricted[10]. As *AJP-01(D)* is not subject to any security classification and it is releasable to the media, *RAFD* should enjoy the same regime.
- *Allied Joint Doctrine Development AAP-47(A)* states, as far as *classification* is concerned, that: the security class of NATO documents should be kept at the lowest level possible so that information can be widely disseminated[11]. As *RAFD* addresses not only to the Romanian Armed Forces but also to the Romanian citizens, this doctrine should not be classified, because it represents *"information"* of public interest, so all those who are interested should have access to it[12].
- Given that the cornerstone doctrine of every nation represents not only the essence of what has been thought and put in practice over time but also what is strongly believed, thus helping each citizen to form personal convictions, it has become necessary to promote its values and principles as widely as possible, because its scope – war, as a matter of life and death for every citizen – should not be debated only by professionals.

AJP-01(D), RAFD and JP 0-01. Considerations relating to the analysis of the content

Doctrine, a fundamental element of the conceptual component of *fighting power*, has to provide the necessary ideas and knowledge to form the ability to act/fight. By sorting and ordering the knowledge acquired over time, in the personal process of the spirit and mind continuing education, the individual invested with acquiring the skills to act/fight enjoys the direct access to the best materials to develop the necessary competences to skilfully use the available capabilities.

[10] *Government Decision no. 585 on 13 June 2002 to approve the National Standards on the Protection of Classified Information in Romania*, published in *Monitorul oficial*, no. 485 on 5 July 2002, p. 2.

[11] *Allied Joint Doctrine Development AAP-47(A), Supplement to AAP-3(J), NATO Standardisation Agency (NSA)*, September 2011, pp. 2-14.

[12] *Law no. 544 on 12 October 2001* regarding the free access to information of public interest, in *Monitorul oficial*, no. 663 on 23 October 2001.

Doctrine, ensuring access to the lessons learned from past actions, helps, on the one hand, with avoiding the repetition of the same types of mistakes in similar future situations, and results, on the other hand, in developing innovative concepts based on already gained experience.

Therefore, the doctrine succeeds in converting an amount of subjective viewpoints on an issue into an objective, simple, clear and substantive guide. The doctrine should not substitute for dogma. The doctrine presents *how we should think and not what we should do during* military actions. It should interpret past experiences in the light of future actions, offering guidance and possible ways to follow. Therefore, the doctrine is not only a sequence of ideas resulting from considering and filtering past best practices but also an expression of the beliefs and understandings related to the present and the future. It is in this way that the doctrine fulfils the role for which it exists – *"providing a foundation from which initiative can be applied with confidence"*[13].

Based on the comparative analysis of the understanding and use of the doctrine in the spectrum of military actions we conclude that, in the Romanian understanding, the doctrine *"sets out how* [operations] *shall be planned, prepared, managed, developed, supported and completed, describing the methods through which military forces carry out their activities, without explaining and justifying their actions, which falls on defence policies and the commanders/leaders that ensure the actions command and control"*[14].

If the primary role of a doctrine is, in Clausewitz's view, that of being *"a guide to anyone who wants to learn about war from books; it will light his way, ease his progress, train his judgement, and help him to avoid pitfalls…*[a doctrine] *is meant to educate the mind of the future commander…not to accompany him to the battlefield"*[15], then the military doctrine of our country should more develop the principles and philosophy of Romanian military art in the light of NATO doctrine ideas.

Based on NATO desideratum to establish a common framework for the management of joint operations, *RAFD* provides the necessary doctrinal framework for planning, preparing, managing and executing operations and campaigns, focusing on increasing the level of standardisation and interoperability at the conceptual and procedural level within the Alliance.

[13] DCDC, *Operations,* Army Doctrine Publication – UK Ministry of Defence*,* Shrivenham, 2010, pp. 2-4.

[14] *Romanian Armed Forces Doctrine*, București, 2012, p. 11.

[15] C. von Clausewitz, *On War*, translated and edited by Michael Howard and Peter Paret, Princeton, N J: Princeton University Press, 1976, p. 141.

By translating and integrating the doctrinal provisions contained in *AJP-01 (D)*, *RAFD* meets the objectives related to the harmonisation and compatibility of the principles and concepts of using Romanian Armed Forces both on the national territory and beyond. However, *RAFD*, as the Romanian philosophical foundation regarding the actions of the Romanian armed forces that could be conducted both within NATO and outside it, should highlight more clearly the principles of combat and the ways of conducting warfare according to the national particularities (and here, we should consider the present and future scarcity of financial resources, which results in the impossibility of sufficiently developing the physical and moral component of *fighting power*), as well as the way in which the sense of action/fight of the Romanian soldier and of the military organisation he is part of is created, trained and maintained, the philosophy that underlies the decision-making process in order to develop plans and give the necessary orders to carry out the assigned missions.

It is true that the need for using the armed forces of NATO member countries jointly requires the development of procedural mechanisms with a superior level of standardisation to ensure the functionality and consistency in expression during operations and campaigns. And it is equally true that the philosophy and the way in which the same standards are implemented may differ from one member state to another, because of the particularities related to national specificities of each country. Taking as a good example the way in which the UK doctrine presents the philosophy of action of its armed forces in the light of past experiences, we believe that the Romanian people feats of arms, which have had great echo throughout history, should lie at the basis of illustrating the principles of action of the Romanian armed forces of today and tomorrow because, doctrinally, a principle is hard to remember by the vast majority of the members of an army if it is not backed by the explanatory and illustrative force of past successes/failures.

The implementation of the concepts and procedures contained in the allied joint doctrines without considering the fact that the modes of interpreting and applying them can vary significantly from one member state to another, depending on the characteristics of material and human resources, can be a point of vulnerability while conducting military operations on the territory of NATO member states (according to Article 5 of the North Atlantic Treaty – the collective defence) and in different theatres of operations (according to the decisions of the Alliance, known as *non-Article 5 crisis response operations*).

In his Romanian Academy award-winning paper – *"Armata modernă. Concepţiuni moderne în organizarea armatelor" (Modern Armed Forces. Modern Concepts in Organising Armed Forces)*, Major R. Dinulescu, referring to the doctrinal provisions applied during the First World War (the *"Great War"* as it was called at that time by many Romanian publicists), remarks that *"all the armed forces regulations were copied almost entirely, some from those of the German Armed Forces and others from those of the French Armed Forces. But there was no big difference between the regulations of these two main armies. However, it seems that the way to interpret and apply the same principles was deeply different between these two armies, and this fact was to highlight since the first operations of the First World War"*[16].

Therefore, meeting the objective of making Romanian military doctrines compatible with NATO ones, even employing the easily available procedures – the translation and adaptation of NATO doctrines – should not be rejected as less valuable if, simultaneously, are taken measures for the proper application of the included principles, such as: education according to the concepts, training in conditions as close as possible to the proposed procedures and practices, provision of combat equipment and assets to meet the required standards, motivation and morale support etc.

Thus, in the process of harmonising national doctrinal concepts with those of NATO related to insurgency – counterinsurgency-type multinational operations, Romania ratified the Romanian Armed Forces operating principles in this environment by editing the *Doctrine regarding the Participation in Counterinsurgency Multinational Operations SMG 36 on 11.06.2012*[17]. Being necessary to also ratify and adopt NATO doctrine regarding counterinsurgency – *Allied Joint Doctrine for Counterinsurgency (COIN)/AJP-3.4.4)*, the Romanian doctrine states that *"the Romanian Armed Forces participation in international counterinsurgency missions does not apply in missions conducted on the territory of the Romanian state"*[18], as, from the national perspective, it is the Ministry of Internal Affairs responsibility to counter these actions.

By presenting the brief analysis of *AJP-01 (D), RAFD* and *JP 0-01*, we intend to highlight a few aspects related to the compatibility and conceptual particularities of the Romanian doctrine, in the context of the experience gained from our country NATO membership. The basic idea of this approach is the fact that once the doctrinal harmonisation and compatibility between national provisions and the Alliance

[16] Major R. Dinulescu, *Armata modernă. Concepţiuni moderne în organizarea armatelor*, p. VIII.

[17] *Doctrine regarding the Participation in Multinational Counterinsurgency Operations, S.M.G. 36* on 11.06.2012, the General Staff, Bucureşti, 2012.

[18] *Ibidem*, p. 9.

requirements is achieved, the next step should be the proper application of the adopted principles and philosophy. This new and difficult step requires, in turn, highly continuous educational and training formative processes able to lead, in the long term, to the change of mindset, in accordance with the principles contained in national documents, doctrines and textbooks.

In 1937, in Romania, with regard to doctrinal concepts and their application, Captain Mircea Tomescu states that: *"Napoleon considers theoretical knowledge insufficient to master the art of war as grammatical knowledge is insufficient to create a literary work"*[19], and *"theory can be combined with reality or, better to say, principles can be applied to the case in many different ways"*[20].

Today, a lifetime away, NATO doctrine represents the authoritative fundamental principles guiding forces to achieve their objectives. Even if the principles are considered to be the best, they should be applied with judgment. In other words, nowadays, although the *"grammar"* of then Captain Tomescu has expanded quantitatively and qualitatively as a result of increasing data and information in the area of action (more principles, more concepts, more tactics etc.), it remains the same need for judgement – *in application* – to find the most appropriate form of success in action, which is equivalent to *creating a literary work*.

English version by
Diana Cristiana LUPU

[19] Captain Mircea Tomescu, *Ştiinţa militară şi doctrina românească*, Fundaţia pentru literatură şi artă *"Regele Carol al II-lea"*, Bulevardul Lascăr Catargi, 39, Bucureşti, 1937, p. 5.
[20] *Ibidem*, p. 8.

CHANGE MANAGEMENT IN THE ROMANIAN MILITARY EDUCATION SYSTEM

Colonel Olivian STĂNICĂ

The article presents some aspects related to change management in the military education system in Romania. The author shows that, in the military system, more than in other organisations or systems, organisational culture is based on symbols, traditions, practices, values, beliefs and expectations that both particularise and differentiate it. That is why the changes in the military education system should be properly correlated with the specific organisational culture. Moreover, the author identifies some essential aspects related to change in the military education system, among which the following can be mentioned: the redesign of the graduate model, the development and implementation of a flexible curriculum, the structural reorganisation of the military higher education system.

***Keywords**: education; change management; competence; skills; resistance to change*

Change management in the Romanian military education system is a hot topic, because the domestic and international environment in which we carry out our activity is full of uncertainty, permanently changing, adapting and transforming itself. The *change* in the national (or military) education system should start with *changing the mindset* of those who provide education management (Heads of schools/high schools/rectors/deputy rectors/deans/deputy deans/directors of departments/undergraduate or graduate teachers/ scientific researchers etc.), in keeping with the laws in force, as follows: *"[...] the training, through education, of the mental infrastructure of the Romanian society, in accordance with the new requirements derived from Romania's status as a member state of the European Union and the functionality in the context of globalisation and with sustainable generation of national highly competitive human resources, able to function efficiently in the present and future society"*[1].

In the current context, military education institutions cannot be excluded from dealing with the new, sometimes-difficult-to-anticipate changes

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[1] ***, *Legea educaţiei naţionale no. 1/2011*, Art. 2, par 2.

in order to accomplish their missions sometimes with little or insufficient (material, human, financial) resources. The tools to be identified, in such cases, belong to *management*. These tools can provide the managers of military education institutions with solutions in respect of: organisation, management, evaluation, control, decision-making under risk and uncertainty, resource planning optimisation, cost efficiency, prediction and medium and long-term forecast for certain phenomena, competitiveness increase etc.

Based on the strategy developed for the next ten years by the European Commission – *"Europe 2020"*[2] –, designed to support the revival of the European economy and to enable a *"smart, sustainable and inclusive growth"*, Romania, through the Programme for government, has intended to form a competitive human resource in accordance with the requirements of knowledge society, globalisation, education for a sustainable society. The major objectives at European level involve *changes* in the priorities of national education, in general, and the military one, in particular.

The fundamental legislative act under which military education works is the *National Education Law no. 1/2011*, according to which, in Romania, education is a national priority and military education is public education, integral part of the national education system, with its own identity and personality.

The integration in the European Union, as well as the Romanian Armed Forces missions resulting from membership with full rights and obligations of NATO assume rallying to the value system of these organisations, *military education* included. Compatibility with training, specialisation and improvement systems of the professionalised military personnel from NATO armed forces remains one of the key factors of the *transformation/change* process.

In this study, I allowed myself to associate the term *"transformation"*[3] with the one of *"change"* and use them in an associated manner, as synonyms for the approached topic.

Starting from this concept, *transformation* versus *change*, I will present some ways and means to put into practice change management in military education.

The fundamental objective of *transformation/change* of military education between 2012 and 2016 must be in accordance with the one assumed through the core conceptual documents[4]: *"Achieving a flexible, efficient and economic integrated*

[2] At http://ec.europa.eu/europe2020/index_ro.htm retrieved on 14 February 2013.

[3] According to DEX *(Explanatory Dictionary of the Romanian Language)*, *transformation* means change-making, development, evolution, transformation.

[4] See *Strategia de transformare a Armatei României*, 2007.

education, in keeping with the necessary professional training and development of the Romanian Armed Forces personnel, according to their operational needs, compatible, fully integrated with the civil education at national level and in the Euro-Atlantic area, while promoting and developing the values and traditions of the Romanian Armed Forces".

Change is, in general, the action of replacing one thing with another, or someone with someone else; to give to one thing another shape, another aspect, to change, to transform, to adapt, to enrich, to improve.

English author Kurt Lewin[5] explained the issue of *change* through force-field analysis, considering change as a dynamic balance of forces that, on the one hand, stimulates/causes change and, on the other hand, causes resistance to change.

According to K. Lewin, the balance of the forces acting for change consists in:

- *elements acting for change*: technological change, knowledge explosion, outdated products, improved working conditions;
- *elements acting against change*: old mentality, fear of technology, insufficient time to learn new techniques, compatibility environment, mental blocks, disinterest, fear of the new, fear of failure, low degree of professionalism, changing structure of the workforce.

Romanian authors C. Florescu and N. Popescu[6] believe that *"change is any substitute, modification, transformation or adjustment in the form and/or content of an object, product, work, business or organisation"*.

American specialists J. Ivancevich, James Donnelly and James Gibson[7] consider change management as a systematic process that can be divided into several sub-processes and, in this respect, the following methodology is agreed upon:

- identify factors that trigger change;
- recognise the need for change;
- diagnose the problem;
- describe existing conditions;
- select method;
- overcome resistance to change;
- implement and coordinate change.

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[5] At http://ro.scribd.com/doc/72778170/Fact-Care-Genereaza-Schimbarea-Dupa-Kurt-Lewin retrieved on 04.02.2013.

[6] At http://facultate.regielive.ro/referate/management/managementul-schimbarii-institutiilor-publice retrieved on 03.02.2013.

[7] At http://ro.scribd.com/doc/72778170/Fact-Care-Genereaza-Schimbarea-Dupa-Kurt-Lewin retrieved on 05.02.2013.

Another group of American specialists, represented by Joseph L. Massie and John Douglas[8], explains the five categories of possible changes:

- changes in knowledge and techniques;
- changes in leadership objectives;
- changes in the issues managers confront with;
- changes in the organisational environment;
- changes in the rate of change.

Change in the *management of the organisation* is explained as a change in the management process that takes place in the organisation, through which there are added new elements/components to the leadership and/or corresponding relations between existing and new elements or through which the old, outdated ones are eliminated, together with the relations created by such elements.

There are two categories of phenomena that determine and make necessary changes:

➢ *objective phenomena*, that require that the change of the management of organisations results in assistance, guidance for narrowing gaps;

➢ *subjective phenomena*, caused by shortcomings in the organisation, being thus required that the changes in management result in improvement, development actions and in elimination of such shortcomings.

The need for change and innovation is felt both in the global economy, as a whole, and in the national economy, companies and institutions of any kind. This change has accelerated as a result of the technological revolution, economic, political and social transformation. When making this assessment, we consider management in its broadest and general sense, covering all areas of economic, political, social, both civil and military life.

One of the great sages of antiquity, Heraclitus, said *"nothing endures but change"*. Alvin Toffler, in *"Powershift"*, referring to the shifting centres of power, shows that "*the decision-making centres are in constant motion, situations get complicated, change, the reaction rate is higher and bureaucratic answers are not sufficient anymore"*.

Management dynamics are felt especially in economies in transition to a market economy, involving institutional and legislative changes that establish change at all levels.

Change management consists of all new concepts and methods, with direct or indirect impact on people and organisations, in order for them to survive and thrive in a general, very mobile (political, social, cultural, economic and sometimes natural) environment.

[8] At http://facultate.regielive.ro/referate/management/managementul-schimbarii-institutiilor-publice retrieved on 03.02.2013.

Change management is a systematic process that can be divided into several stages:

- identify factors that trigger change;
- recognise the need for change;
- diagnose the problem;
- identify methods and alternatives that will bring about change;
- describe existing conditions;
- select method;
- overcome resistance to change;
- implement and coordinate change.

In what follows, I will provide three definitions of change management[9]:

1. – *change management* – refers to the adoption of changes in a planned, structured, organised manner. At the heart of change management lies the change problem, which is the stage we will reach in the future based on the current state and the structured and organised process that will enable the transition from one stage to another. The problem of change is expressed under the form of questions like: How?, What?, Why? For instance: How do we make this problem more innovative, competitive and productive? What changes are needed? What indicators will signal success? What standards we will apply? What performance measures are we trying to adopt? Why do people need to be more creative? Why should our profit increase?

2. – *professional practice* – refers to the reaction, the response to the changes the organisation does not control or controls to a small extent (e.g. legislative changes, social or political climate change).

3. – *expertise* – refers to those methods, models, techniques and other tools used as content or subject matter of change management. It is drawn by sociology, psychology, economics, industrial engineering, systems engineering, study of behaviour. A definition that I consider to be general and that is the essence of change management is a set of skills, techniques and disciplines through which complexity and specialisation are transformed into actions and results, through organisation. The adoption of change management methods is a difficult, but necessary, therefore, continuous process, despite the difficulties.

Charles Darwin tells us that *"[...] It is not the strongest of the species that survives, nor the most intelligent, but rather the one most adaptable to change"*. The profound changes/transformations taking place at national level in Romanian education should be reflected in changes in the military, or in the military education,

[9] At http://ro.scribd.com/doc/72778170/Fact-Care-Genereaza-Schimbarea-Dupa-Kurt-Lewin retrieved on 05.02.2013.

given that it *"[...] is, by its nature, a dual process, designed to provide military training of the staff in relation to the military operational requirements, at the same time open and receptive to the transformation of civil society"*[10].

In this context, military education, as part of national education, accepted the challenge to address the *change* of the new goals agreed by the Ministry of Defence in accordance with the external requirements *(Romania NATO member state – 2004 and EU member state – 2007)*, the civil ones *(military missions during peacetime, crisis situations and at war are supplemented with humanitarian missions, support for central and local public administration bodies, during emergency situations, post-conflict reconstruction missions*[11] *etc.)* or military ones *(abolition of conscription – October 2006 and re-establishment of the voluntary recruitment system to form fully professionalised armed forces, development of new conceptual and strategic documents: Romanian Armed Forces Transformation Strategy, commitments to collective defence, see Antimissile Shield – 2011, Romania's participation in NATO projects – Smart Defence, Connected Forces Initiative or EU projects – Pooling & Sharing etc.)* while preserving own identity.

Transformation/change of the military education is required by furthering the process of adapting the system to the evolution trends of the national education and the one in the EU and NATO member states.

At EU level, there will take place changes in the field of education. In November 2012, the European Commission launched debate on a new initiative, namely *Rethinking Education – Investing in Skills for Better Socio-Economic Outcomes*[12], which will be a timely and valuable contribution to re-launching the process of developing modern and effective education and training systems, at national level, as well as in terms of concrete initiatives at EU level. The document will generate changes in education, in the European area of learning, lifelong learning, professional training as well as in the area of the use of technologies from education.

Special emphasis will be laid on *developing skills*[13] *for the 21st century*, namely:

a) *transversal and fundamental skills* (efforts should focus on developing transversal skills, especially entrepreneurial skills, while the demand for skills in science, technology, engineering and mathematics (STEM) is still high,

10 ***, *Planul strategic al Ministerului Apărării Naţionale*, Bucureşti, 2008, p. 28.

11 ***, *Doctrina Armatei României*, Bucureşti, 2012, p. 52.

12 Communication from the Commission to the European Parliament: *Rethinking Education – Investing in Skills for Better Socio-Economic Outcomes*, Sheet nr. 174/EDUC4/20.11.2012.

13 Skills are essential for productivity, and Europe must react, given the improved education and power supply worldwide. Forecasts indicate that, in 2020, over a third of the jobs in the EU will be filled by tertiary graduates and only 18% of jobs will be available for people with low qualifications.

although the first step must be acquiring basic skills by everyone, as language learning is important on the labour market and requires special attention);

b) *professional skills* (improving the quality of professional skills is based on the development of systems regarding/for the promotion of excellence in vocational education and training (VET) at world level, which can contribute significantly to reducing the deficit of qualified personnel through deeper cooperation at European level).

Moreover, education transformations will also require *fostering open and flexible learning*, through:

a) *improving learning results, assessment and recognition* (success should be determined by the learning results and the assessment capacity should be better used. Qualifications should open as many doors as possible and academic recognition can be a pioneer);

b) *exploiting the potential of information and communication technologies (ICT)* and permanent and free education resources available for learning (the digital revolution offers great opportunities for education and it is time to expand the use of ICT in the learning and teaching process to freely operate available knowledge);

c) *supporting teachers in Europe* (teachers face a rapid evolution of requirements that need a new set of skills, training of trainers and managers of education institutions, with strong actions to support new teaching and learning approaches, while the quality of the teaching process is a key issue for higher education).

Given that global education has become increasingly circumscribed to the idea of performance, its management should also be oriented towards high *quality* in the field. Therefore, in the European context of the objective needs for *transformation/change*, the Romanian military education more and more clearly needs a management centred precisely on change and quality assurance. Between the two concepts – *"change"* and *"quality"* – there is a more than obvious correlation *(figure 1)*, assuming that any change, at least at design level, is operated with the intention of obtaining *"greater good"*.

Any *change aimed at an organisation* (school/college/department) or *an education system* (school/secondary/post-secondary/higher education system) means *"[...] carrying out its essential changes, as a whole – changing the mission and the vision, changing the education offer, introducing new technologies with new types of education activities, introducing a new performance evaluation and reward system, significant changes in the organisational structure etc."*[14].

[14] Alois Gherghuț, *Management general şi strategic în educaţie*, Editura Polirom, Bucureşti, 2007, p. 163.

***Figure 1:** Correlation between change management and quality management in the military education system (a variant proposed by the author)*

In this regard, given that we have agreed on the need for change and the courses of action to support it, we can consider that *change management in the military education system* must involve a set of specific activities – communication, training, counselling, preparation – in order to provide guidance from its components to people with responsibilities in the field, with the purpose of gaining optimum results and intended purposes.

Change management experts are concerned with investigating to what extent a change at the level of a system, with implications particularly on its structure, represents an aspect that is different from the one of the change of the organisational culture. In the military, more than in other systems or organisations, organisational culture is *"experienced"* more intensely and is based on symbols, traditions, customs, practices, values, beliefs and expectations, in other words, on a spiritual dowry that individualises and differentiates it from other cultures. Therefore, the changes projected in the military education system must aim at a natural correlation between them and the ones that objectively relate to actions of modelling specific organisational culture.

In *table 1* there are presented by comparison elements of the change in the system of the organisation and the ones of the change in the organisational culture.

Change at the level of the organisation system	Change at the level of the organisational culture
- problem-oriented	- values-oriented
- easier to control	- largely uncontrollable
- involved in gradual changes of the system	- concerned with the transformation of fundamental beliefs
- aimed at improving the organisation's measurable results	- oriented towards the quality of life in an organisation; progress is difficult to measure
- diagnosis involves finding *"inconsistencies"* in relation to other systems	- diagnosis involves concern for examining the dysfunctional effects of core beliefs
- change in leadership is *"not"* essential	- change in leadership is essential

Table 1: Changes in organisational culture and at system level[15]

The reasoning considers the fact that understanding the determinations, the content and the development of the military education is not possible without assimilating the basic data regarding the system definition, typology, elements, processes and components, management and attributes, types of participation, motivation, involvement and assessment. Once these issues are completed

[15] Alois Gherguţ, Ciprian Ceobanu, *Elaborarea şi managementul proiectelor în serviciile educaţionale*, Editura Polirom, Iaşi, 2009, p. 42.

and acknowledged, the ground is set for understanding the content and aims of the projected changes.

According to many specialists, *change management in the military education system*[16], in terms of the organisational culture *"entering the equation"*, must include some elements that focus not so much on structures, but especially on the people who are part of them:

- transmitting, up to understanding, of rationality of changes and their full consistency with the missions and goals established for the system;
- distributing statuses and roles, based on value and skills, appointing in the management positions of system components (especially the remodelled ones) authentic professionals in the field of military education, with outstanding professional qualities and notoriously recognised;
- fostering and maintaining a strong cohesive military education system – a prerequisite for modelling the will and the desire for action, commitment, concentration and coordination of efforts for operationalising changes;
- enhancing integrative potencies of the military education system. Personnel changes (people) inherent to structural changes must require, from managers at all levels, that the methodology specific to the adaptation and integration processes are applied from two perspectives: the new one will become an *"organisational man"*, respect the values, traditions, symbols of that entity, which should not turn them, at the same time, into a dull, blasé individual, a *"yes-man";*
- correctly and timely solving conflicts, disagreements and tense change-generated situations;
- valuing and operationalising the idea of *"management team"* in all education institutions of the system. Achieving the desired (projected) aims is strongly influenced by the ability of management teams to be homogeneous, consistent, communicate fluently and have shared feelings, values and beliefs.

Presentation of the above elements shows a certain overlap between the concepts of *"culture"* and *"system"* and points out that, in the military education, change management combines elements of both *organisational culture* and the *system*.

Choosing the most appropriate strategy for change means, in any field, *"studying influence factors and identifying, in advance, the scale and forms of expression of support for or opposition to the principles of change, the position of the promoters in terms of decision-making, information and arguments relevant to designing change"*[17].

[16] Constantin Moraru, *Managementul învăţământului militar românesc şi influenţa acestuia asupra capabilităţilor Armatei României*, Doctoral thesis, UNAp, Bucureşti, 2010, p. 80.

[17] Alois Gherghuţ, *Management general şi strategic în educaţie*, *op. cit.*, p. 166.

In the military education system, *a successful change* requires several conditions:

a. the goal must be well-defined – understanding the objective pursued by allowing structural or content changes avoids any confusion and subjective interpretations from those involved in the change process;

b. setting measurable and feasible targets – it assumes an hierarchy of priorities in accordance with the requirements and resources needed by the system;

c. there should be motivational elements to allow change – it must be induced by clear and reasoned *"explanations"* that, in most cases, they will produce the desire to improve professional skills in order to adapt to the new conditions imposed by the projected change. The actors involved in education changes must be motivated by encouraging innovation, rewarding new practices and recognising the *"right to fail"*[18];

d. there should be allocated the necessary resources to produce change – each type of resource (human, material and financial) has its importance in ensuring the success of the proposed change, the focus being primarily on human resources. If the projected resources are not allocated, this will result in failure (a risk to be assumed by policymakers);

e. monitoring and evaluation of the steps taken – that is permanent until the change is made.

If we refer to the *change process in a military education institution*, then the particularisation of the conditions necessary for *successful* change becomes more pronounced. In my opinion, before valuing these conditions, the managers of military institutions must *"discover"* the **causes generating resistance to change** and take action to avoid them. Here are some of them:

- **lack of information (or misunderstanding the idea of change)** regarding the nature, objectives and rationale for change, the factors that require it and its further advantages. The absence of such data/ information often produces negative effects on components of cognitive, motivational and volitional human personality. The greatest risk is that the proposed changes are misinterpreted and rumours tend to replace formal information;
- **people uninvolved in the changes**, treating specialists in military education as mere performers and not as authors from the design stage up to completion. Training professionals in the field for achieving a change project transfers them the responsibility for putting it into practice;

[18] Ş. Iosifescu (coord), *Manual de management educaţional pentru directorii de unităţi şcolare*, Editura ProGnosis, Bucureşti, 2000, p. 26.

- **routine**, familiarity with what exists, with what has so far provided a psychological and behavioural comfort, the belief that this could go on in the future, even if the profile of education outcomes is outdated;
- **fear** that the new structural configurations can lead to losing jobs or reducing incomes;
- **concern** that they will not be able to meet the new performance standards or that they will need to retrain themselves in the field;
- **refusal to adapt** to new information technologies, change of mindset, professional retraining, working style, new requirements for new methods of teaching-learning-assessment etc.;
- **distrust of the initiators of change**, of their ability to identify the actual situation and to propose new measures for effective change.

Statistically speaking, the organisation staff will be assigned (see Gaussian Curvature[19]) according to *figure 2*, as follows:

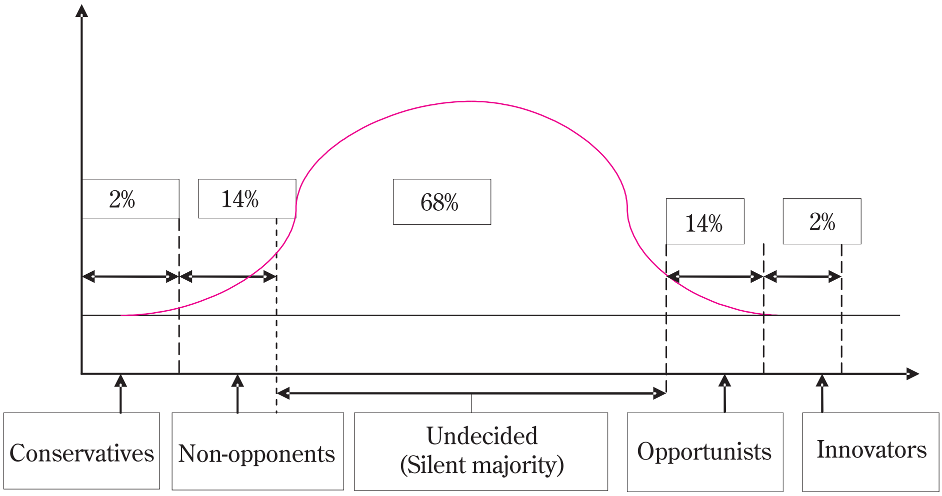

Figure 2: Chart of MAFF Model – Human Support for Change[20]

According to the model, we notice that the human resource behaves the same in each organisation when the change occurs, as follows:

- 2% of the organisation staff will actively oppose change, regardless of the results and effects (they are called *conservatives*);

[19] Gaussian Curvature is the graphic representation of the (probability of the) distribution of values based on a standard average. It bears the name of great German mathematician Karl Friedrich Gauss (1777-1855) and, because of its shape, it is often named *"Gaussian bell"* or *"Gaussian hat"* (from the bicorn hats from the Napoleonic era).

[20] Anghel Andreescu, *Managementul stresului profesional*, vol. II, Editura Ministerului Administraţiei şi Internelor, Bucureşti, 2006, p. 53.

- similarly, 2% of the organisation staff will agree with the proposed changes, regardless of the results and effects (they are called *innovators*);
- 14% of the organisation staff, although they do not like change, do not oppose if their personal or group interests are not affected (they are called *non-opponents*);
- 14% of the organisation staff who agree with change will still manifest opposition to it if their personal or group interests are affected (they are called *opportunistic*);
- a percent of 68% of the staff organisation, the *"silent majority"*, consists of those who do not resist change nor are determined to change something (they are called *the undecided*).

Taking into account the possible occurrence of such issues, change management emphasises the need for the *manager of the military school* to use the most appropriate forms to remove or diminish the resistance to change and to increase the *innovators* percentage by an absolute majority of the *undecided* category through:

- *informing*, as completely, truly and timely as possible, subordinates, especially in the early stages of the change process, as well as during this process;
- *reassuring* the institution's *employees* that any specialisation or re-specialisation needs will be possible and will be done with the support of the management team;
- *sending the clear message* that special attention will be paid for each one and that the new structure(s) will be filled only by applying the *principles of meritocracy* (competence, talent, motivation, responsibility, social prestige, morality);
- *effective engagement* of staff in the transformation/change process.

The new functioning conditions of the military education system as indissoluble part of the armed forces that are integrated into Euro-Atlantic structures, as well as the need for compatibility of its goals with the ones of similar systems/structures from allied countries/armed forces transform *change* into a continuous process.

In other words, *continuous change* must be a way of thinking and acting in carrying out all the education-military process in the military education system. This concept – *continuous change* – is, according to Alois Gherghuţ, *"[...] one of the most important innovations of the management system of high-performance institutions today"*[21].

This focus triggered the emergence of a new concept – *"the learning organisation"* – from the content of which military schools can get inspiration.

[21] Alois Gherghuţ, *Management general şi strategic în educaţie*, *op. cit.*, p. 175.

That is why, by presenting below some of the characteristics of the *"learning organisation"*, as well as those of its employees, we suggest that change management should be approached in the military education system in keeping with such guidelines as well.

According to Alois Gherghuţ, the features[22] of the *"learning organisation"* are:

- to provide ongoing learning opportunities for all its components;
- to use learning to achieve organisational goals;
- to promote systemic problem solving using data and not assumptions;
- to continuously combine individual performance and organisation performance;
- to promote research, dialogue, asking questions and to make people feel safer, be more open and take risks;
- to consider creative tension as a source of energy and renewal;
- to consider a continuous and conscious mutual conditioning with the environment;
- to ensure learning from others and using successful practices;
- to provide fast and efficient transfer of knowledge to the organisation through reports, conferences and training programmes.

Change management in the military education system, beyond a set of theoretical and practical principles, standards and criteria, reveals the need for indubitable value of the manager (commander, rector, director), viewed from a dual perspective: as *personality*, possessing a number of strengths and weaknesses, which influence the attitude towards new, and as *decision-maker*, an element directing the renewal. In the same vein, the military education management/manager should highlight the capabilities of creative people, of those defined by *a number of features*, such as: the ability to formulate alternatives to solve problems, to doubt truths considered obvious at first sight; passion, constant interest in military education; perseverance, independence and courageous thinking; ability to look ahead, to foresee and to properly assess the evolution of the structure they are part of or the process the structure generates; intolerance to preconceived ideas; attitudes towards the use of experiment, putting in practice proposed solutions and goals.

Due to the experience gathered[23], I felt that the main objectives of the *transformation/change* process in the military education should be: connect between military education policies and the national and European ones;

[22] *Ibid*.

[23] In charge with the training and education field within the Directorate for Training and Doctrine/ the General Staff, member of NATO Working Group on Training and Education since 2006 and co-author of the *Concept of Transformation of Military Education* in 2008.

redesign of education goals and curriculum as a unitary, integrated, phased concept, differentiated on levels of education, according to the skills necessary for the future military personnel; institutional reorganisation of the military education system, particularly in higher education, to meet the real needs of the Ministry of National Defence; improved quality of education and scientific research; professionalisation of the teaching career in the military education system; broadening of the collaboration with similar military and civilian institutions in the country and abroad, mainly those belonging to NATO and the EU member states.

To achieve these objectives, we identified several courses of action of the *transformation/change* of military education, such as: redesign of the graduate model; development and implementation of a flexible education curriculum, focused on skills and elimination of education programmes and unnecessary contents; structural reorganisation of the higher military education system, gradually, in stages; design and implementation of a system of initial and continuing training of teachers of military education in order to increase the attractiveness of the teaching career; intensification of exchanges of experience (lessons learned, best practices) between units and military education institutions in Romania and NATO/EU countries (developing students, young officers/NCOs and teachers mobility).

The considerations above are meant to show some requirements, principles and directions of a successful change management in the military education system. Hoping that the necessary changes designed in this system will contain in their development a part of the logic of the ideas expressed above, I appreciate that their goals will have the scope and content necessary for the harmonisation with those of the similar systems of the allied armed forces.

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BUILDING MILITARY CAPABILITIES THROUGH COMPLEMENTARY MULTINATIONAL INITIATIVES OF NATO *(SMART DEFENCE)* AND EU *(POOLING AND SHARING)*

Captain (N) Theodor Nicolae ENACHE

NATO Critical Capabilities Package was created at the 2009 Lisbon Summit and comprises the most urgent capability needs of this organisation, consisting of 11 capabilities needed for carrying out Alliance missions. It prioritises the Alliance capability needs on three domains, as follows: covering current operational deficits; countering new and emerging threats; supporting current and future operations.

Our country takes part in the following NATO capability projects: Allied Ground Surveillance – AGS; NATO Airborne Early Warning and Control – NAEW&C; Air Command and Control System – ACCS; Ballistic Missile Defence – BMD; Deployable Communications Module – DCM.

Keywords: *interoperability; NATO-EU Group; capabilities; multinational framework*

Ever since its launch, Romania has paid a special attention to the NATO (ACT-led) initiative of *Building Capability through Multinational Approaches – MNIA*, as part of the overarching *Smart Defence – SD* process as well as to the similar European Union *Pooling & Sharing – P&S* initiative.

The national participation in these two multinational initiatives aims:

- to support/enable the implementation of national *Capabilities Targets – CT2013* assumed within the NATO Defence Planning Process;
- to provide national contribution for reaching the NATO/EU Level of Ambition;
- to save resources for investments from national defence budget;
- to meet national capability requirements;
- to improve regional cooperation.

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Capabilities Development within NATO

Against the background of the existing dichotomy between the Alliance's security and defence vision for the next decade – stipulated in the *strategic concept* and in the *political guideline* – and the more and more severe budgetary cuts that affected most allied states, NATO approved, in 2012, at the Chicago Summit, a *comprehensive and coherent defence package*, reuniting all conceptual propositions made within the allied framework in the past period *(Smart Defence; NATO Forces 2020; Connected Forces Initiative;* increasing interoperability through education and training; formal connections between *NATO Command Structure – NCS* and *National Joint Headquarters – NJHQs)*.

The defence capability package is aimed to *launch a set of initiatives and measures with a view to acquiring all capabilities necessary for carrying out essential missions of the strategic concept in the current financial context.*

The main factors that influenced the philosophy that lay at the basis of the development of the *defence capability package* are: (1) the evolution of the geostrategic environment; (2) the persistence of the financial and economic crisis, which influenced the defence capacity of most allied states; (3) the success of *Operation Unified Protection* in Libya, which highlighted certain flaws and the importance of the relation with partners; (4) the anticipated withdrawal of allied forces from Afghanistan in 2014, according to the agreed-upon schedule.

NATO Critical Capability Package was agreed during the 2009 Lisbon Summit and represents NATO's most urgent capability needs, consisting of 11 capabilities necessary for carrying out Alliance missions. It corresponds to the prioritisation according to three domains of Alliance capability needs, as follows:

- *covering current operational deficits;*
- *countering new and emerging threats;*
- *supporting current and future operations.*

Romania's Participation in NATO Capability Development Process

Romania takes part in the following capability projects that are being developed at Alliance level:

- *Allied Ground Surveillance – AGS;*
- *NATO Airborne Early Warning and Control – NAEW&C;*
- *Air Command and Control System – ACCS;*
- *Ballistic Missile Defence – BMD;*
- *Deployable Communications Module – DCM.*

Smart Defence Initiative

Within NATO, the multinational solution is not a recent idea and entails a series of elements that should strengthen the success of such chances: (1) a pragmatic approach, based on mutual political and economic interests and own definition of defence; (2) initiation of a dialogue between ministers of finance and armament directors; (3) provision of resources according to the 2% of the GDP commitment, by imposing sanctions for a smaller percent; (4) cooperation for the development of a major defence capability able to also cover the design and development stages, and not just the final one, of acquisition; (5) a real cooperation with the European Defence Agency – *EDA*.

By participating in the *Smart Defence Initiative*, Romania supports the implementation of the *Lisbon Critical Capabilities Package*, contributes to the development of capabilities included in the *Chicago Defence Package* and the *NATO Defence Planning Process – NDPP*.

Smart Defence has been designed to optimise defence resources in order to provide NATO with the most needed and critical capabilities through multinational cooperation for increasing effectiveness, interoperability and affordability, focusing on practical outcomes and exploiting expertise in NATO staffs, mobilising political will/decision.

In order to ensure the coherence and mutual reinforcement of NATO and EU capability development efforts, transparency and complementarity between NATO's *Smart Defence* and the EU's *Pooling and Sharing* initiatives, a NATO-EU Capability Group was established.

Romania's Participation in *Smart Defence*

The multinational projects proposed within the *SD* initiatives are divided into three domains *(Tiers)* and *Romania focuses on* ***40*** *out of the 149 proposed initiatives*, as follows: *it participates in* ***15*** *out of 29/****Tier 1*** (consisting of projects that have a leader nation and can be implemented), *is interested in* ***18*** *out of 54/* ***Tier 2*** (comprising projects in which the nations have shown only a moderate desire to participate and a leader nation has not been set yet) and *is interested in the long term in* ***7*** *out of 66/****Tier 3*** (projects that cannot be developed yet because of insufficient resources and low interest shown by nations, but have good potential for future development).

On 01.07.2013, that data were as follows:

Tier 1 **(15 projects out of 29)**

- *1.1 MN Logistics Partnerships – MRAP;*
- *1.3 Deployable Contract Specialist Group;*

- *1.5 Centres of Excellence as Hubs of E&T;*
- *1.6 CIS E-Learning Training Centres Network;*
- *1.7 Individual Training and Education Programme;*
- *1.10 Remote Controlled Vehicles – Route Clearance Ops.;*
- *1.11 Multinational Joint Headquarter Ulm;*
- *1.15 P&S MN Medical Treatment Facilities (Role 2);*
- *1.18 Theatre Opening Capability;*
- *1.23 MN Munitions Life-Cycle Management;*
- *1.24 MN Military Flight Crew Training;*
- *1.26 Establishment of a MN Geospatial Support Group;*
- *1.27 MN Cyber Defence Capability Development;*
- *1.28 Harbour Protection;*
- *1.29 Pooling CBRN Capabilities – Regional Grouping.*

Tier 2 **(18 projects out of 54)**

- *2.6 Maritime Support Tankers;*
- *2.7 Armoured Reconnaissance Vehicles;*
- *2.8 Vehicle Armoured Support Carrier-Medical-All Terrain;*
- *2.10 Jammers against Remotely Controlled IEDs;*
- *2.12 Entry Control Point (ECP) Suite Package;*
- *2.13 Persistent Surveillance based upon Mast-Mounted Multi-Spectral Cameras;*
- *2.23 MN Log Partnership – Force Support Eng – MN Military Eng Capabilities – Theatre-level Mil. Eng. General Support;*
- *2.24 MN Logistics Partnership – MN Military Engineering Capabilities – Base Camp Construction and Management;*
- *2.26 Contract Visibility Tool;*
- *2.28 FAC/JTAC Simulation and Training;*
- *2.32 DNBL – Distributed Networked Battle Lab;*
- *2.33 Maritime Situational Awareness – MN Maritime Information Services Programme;*
- *2.41 Mission Modularity;*
- *2.42 Multi Static Low Frequency Active Sonar;*
- *2.46 Maritime Interdiction/Counter-Piracy Boarding Team Equipment;*
- *2.49 Reception, Staging and Onward Movement;*
- *2.61 Mission Module for Mine Countermeasures;*
- *2.73 Long Range Guided Ammunition (76 MM).*

Tier 3 **(7 projects out of 66)**

- *3.96 Sharing Afloat C2 Capabilities;*
- *3.97 Mine Sweeping Drones Pooling & Sharing;*

- *3.99 Dismounted Soldier System (DSS);*
- *3.100 Support to Counter Piracy Operations;*
- *3.125 Generate More Participation in MN Capability Development;*
- *3.137 Distributed Training and Exercises;*
- *3.139 Shared Scenarios.*

Romania fully supports this initiative for its practical approach that provides an important framework to the NATO capabilities development process and provides a lot of opportunities for partner or multinational contributions to NATO. Given the current economic environment, Romania considers multinational cooperation as a key factor in developing the most pressing capabilities and the only way to reach the Alliance's Level of Ambition. From our perspective, NATO has always acted as a facilitator and focal point for the member states in order to fulfil its fundamental missions. The *Smart Defence* concept meets our need to address most pressing challenges, i.e. capability shortfalls and austere defence budgets.

Romania is encouraging an open dialogue with its partners and supports an efficient and elaborate cooperation with the European Union on its *Pooling & Sharing* initiative. The cooperation between the two organisations represents a key factor in order to avoid duplicating the efforts and maximising efficiency of both initiatives. The regional dimension shall obviously play an essential role by strengthening cooperation and coordination in capability development among allies. As an example, Romania and Bulgaria have already made the first steps by exploring the common multinational initiatives in order to streamline the capability development process, in the framework of an inter-ministerial working group *(Defence Advisory Group)* and both parties have shared the view that the multinational approaches are a solid ground for a successful regional cooperation.

Moreover, Romania has gained significant experience in the field of multinational collaboration, being an active member of such initiatives *(Strategic Airlift Capability, NATO Airborne Early Warning & Control* and *Alliance Ground Surveillance)* before the concept of *Smart Defence* was launched. In some cases, we realised the fact that some critical capabilities are beyond our financial reach (strategic lift, inter alia), or, in other cases, we were determined to contribute our fair share to collective defence *(NAEW&C)*. This is a standing principle of our security and defence policy, outlined in our National Defence Strategy, Defence White Paper, and other defence planning documents. Observing our NATO commitments in the broader sense and, more specifically, contributing to NATO capability development are the paramount goal of this policy. In our opinion, NATO might consider whether common funding has a role in making Smart Defence economically attractive, especially for those capabilities that are beyond the reach of many nations.

Romania's Participation in EU's Capability Development Process

The purpose of the initiative is to identify and implement certain projects for achieving EU defence capabilities by using development and shared use of capabilities mechanisms in the multinational framework:

- support for the activities of the *Headline Goal – HLG* process, through the Capability Development Mechanism;
- contribution to the identification of CDP priorities;
- national contribution to the development of the following EU capabilities:
  - *MN Theatre Exploitation Laboratory (Demonstrator)/MN TEL-D;*
  - *European Satellite Procurement Cell – ESCPC;*
  - *Combat Equipment for Dismounted Soldier – CEDS;*
  - *European Air Transport Fleet – EATF;*
  - *Single European Sky – SES;*
  - *Diplomatic Clearances – DIC;*
  - *Multinational Joint Headquarter Ulm – MN JHQ;*
  - *Go Green;*
  - *Pooling & Sharing.*

❖ **Pooling & Sharing Framework**

The concept of *Pooling & Sharing (P&S)* was highlighted in 2008, following a study conducted by the European Parliament, being then assumed and promoted by the European Defence Agency, starting with 2009. *P&S* is a resource management method that brings together the similar capabilities that are to be used through a central authority *(pooling)* or which gathers different resources for obtaining a capability that will be used in common *(sharing)*. The issue is addressed by NATO as well, through the similar *Smart Defence* initiative.

➢ *Pooling & Sharing* aims at streamlining the costs for new capabilities, as a multinational course of action for providing the needed capabilities in keeping with the *Common Security and Defence Policy – CSDP*.

➢ Ghent Initiative is the predecessor of the *P&S* initiative. Briefly, its vision was aimed at:

- *national* capabilities – deemed essentially for individual nations;
- *pooling* capabilities – enables the possibility of closer cooperation, without creating too strong dependencies on other states;
- *sharing* capabilities – entails accepting dependency and reliance upon EU partners in an international framework.

➢ Romania is involved in the following *P&S* projects:

- *Medical Support to Operations (DoI M3U);*

- *Counter Improvised Explosive Device (MN TEL-D);*
- *CBRN Capabilities;*
- *Strategic Air Lift;*
- *Supply and Basic Logistics for MN Operations;*
- *Fixed Wing Aircraft Pilot Training;*
- *Live Firing Areas.*

Romania commends the work done in this regard by *EDA* & *EUMC* and reiterates our support to the *P&S* initiative, which has an excellent potential to reduce the impact of decreased defence budgets. We consider it absolutely necessary to define a clear structure of the future *P&S* process along with the responsibilities of the actors involved.

We believe that the regional dimension could play a key role by strengthening cooperation and coordination in capability development among EU member states and we have initiated bilateral contacts in order to explore the possibilities of developing regional projects. The need of cooperation and, mostly, of coordination between NATO and EU's similar initiatives is paramount in achieving concrete results. We cannot discuss about effectiveness and efficiency and accept the risk of unnecessary duplication of efforts.

❖ **Future Developments**

➢ *Smart Defence*:
- contributing to manning *P&S* project *1.11 MN JHQ Ulm*;
- continuously analysing the opportunity to participate in or observe new projects.

➢ *Pooling & Sharing*:
- implementing the *Code of Conduct* at national level;
- developing a *P&S* opportunities and projects identification mechanism within the *Capability Development Plan – CDP*;
- complying with the measures and documentation for the December 2013 European Council focused on Defence.

ORGANISATION OF THE ACTIVITIES TO SUPPLEMENT THE PUBLIC ORDER STRUCTURES WITH HUMAN AND MATERIAL RESOURCES TO INCREASE THEIR OPERATIONAL CAPACITY

Chief Commissioner Gheorghe ANDREI

The author conducts a detailed analysis of all important organisational changes in the institutions belonging to the national system of defence, public order and security so that they can accomplish their missions. The article is thus a systemic approach to not only the way the public order structures function but also to the way in which they are prepared to ensure the necessary operational capacity for fulfilling the legal missions during crisis situations, such as the state of siege, emergency, mobilisation or war. In addition, it is shown that, in the current context, when supplementing the public order structures with the necessary human and material resources, specific characteristics should be considered, given the complexity of missions.

Keywords*: state of exception; crisis; operational capacity; national resources; defence capabilities.*

Romania, as a member of NATO and the EU, actively engages itself in promoting the policies and mechanisms intended to build the new security architecture, which entails not only political will and consensus, economic and technological resources, ideas and solutions relating to the developments in international and national security related fields, the rule of law, but also concrete ways to achieve its goals.

The Romanian public order system has been significantly changed over the last 20 years, during the process of transition to a democratic society in which the rule of law, the citizen's fundamental rights and freedoms are guaranteed. Moreover, the international processes, such as globalisation and the European Union financial and political institutionalisation, have facilitated the movement of people and financial flows, trade and information, bringing along huge advantages, but also leading to the emergence and development of numerous

Chief Commissioner Gheorghe Andrei – the Ministry of Internal Affairs.

traditional and asymmetrical threats to the rule of law at national and international level, to peace and stability, and to universal human rights.

A detailed analysis of all important social changes, including the organisational changes of the institutions belonging to the national system of defence, public order and security, entails a systemic approach to the way they function and also to the way they are prepared to ensure the necessary operational capacity for fulfilling the legal missions during crisis situations, i.e. state of siege, emergency, mobilisation or war.

In this context, most of the states in the world have been concerned with organising and preparing the process of rapid transition from the state of peace (of mobilisation, respectively) to the state of war (of action, respectively), of not only the political, military and economic management bodies but also of the structures having competencies in the field of national defence, public order and national security.

The process of transition to whichever of the states of exception (crisis) will be initiated, most probably, by declaring the state of mobilisation. This process should be organised so that the following criteria can be met: rapidity, flexibility, progressiveness (by progressively increasing the number of structures augmented or mobilised), permanence, cohesion and decentralisation.

The preparation of this process, even during the state of peace, implies the development of augmentation and mobilisation plans, at all levels, the establishment of responsibilities and the achievement of proper infrastructure[1].

Approaches to the concept of gradually increasing the operational capacity of public order structures

The transition of the structures in the field of defence, public order and national security from the state of peace to one of the states of exception is basically planned so that it can be performed *directly*, by mobilisation, when the aggression (crisis) is imminent, or *in stages* (states), when the crisis situation allows the progressive development of activities.

The different stages of the operational capacity represent a process meant to prepare the gradual and organised transition of the relevant state – as much as possible in a secret way – to higher levels of combat capacity of each and every structure, so that they can timely accomplish the assigned missions.

[1] In V. Breban, *Dicţionar al limbii române*, 1992, p. 471, *infrastructure* = elements of technical equipment base. Foreign specialists consider infrastructure as comprising all the current active units in the state of peace, which are resourced during the state of mobilisation.

In Romania, the current system of increasing the operational capacity of military forces, of public order and national security structures is almost similar to the system in NATO member states, in terms of basic elements, and also to the joint system implemented within NATO.

The new system has been required and established in compliance with: the need for *interoperability* between the armed forces in the member states; the new *risks and threats* and their possible effects at local, regional, continental and even global level; the *changes in the organisational structure* of the armed forces, public order and national security structures, required by the national restructuring plans as well as by the treaty; the *changes in the concept* of using military forces, public order and national security structures during peace, crisis situations (terrorist attacks, natural disasters etc.) and at war (considering the armed forces demassification, the diminution of military budgets, the decrease in the number of people capable of military effort etc.); the *need to increase the operational capacity*, gradually, until the peace establishment is completed and then to achieve the operational capacity meant for the state of war, only according to the evolution of the particular crisis situation and only with the structures involved in the crisis management.

According to this conception, it is allowed to gradually and selectively increase the operational capacity only for the necessary structures. Therefore, in our country, a structure is allowed to gradually increase its operational capacity as required by the relevant constitutional bodies and, if not used in the management of a particular crisis, in the following stages, it is allowed to continue its instruction or to fulfil the duties as stipulated by law.

In the current situation – marked by austerity and socio-economic crisis, the constitutional and military decision-making bodies develop but especially adjust the number and organisational structure of the combat forces intended for national defence, public order and security according to the budgetary resources allocated by the government annually. Under normal circumstances, the overall amount of the *"budgetary resources"* should cover the expenses necessary for the implementation of all the measures stipulated in the plans for increasing the operational capacity and for making the transition to any state depending on the crisis (or war) situation.

The constitutional bodies (having responsibilities in this field), the Government, and the military decision-making bodies are responsible for providing the necessary financial resources in order to gradually increase the operational capacity in crisis situations (war, natural disaster or terrorist attack).

The activities performed in the stages regulated by government ordinances and decisions and by the decisions of relevant bodies have both *common characteristics* to all defence, public order and national security structures and *specific characteristics*, depending on the types of services and their special missions.

The specific activities for each stage, depending on the scope of the crisis or danger, could be performed *simultaneously* by all structures or only by *those mentioned* and appointed.

To achieve the actional forces readiness, it is necessary to provide them with human and material resources in compliance with organisational charts, procurement tables and norms; then – during the periods established in the readiness plan – the forces undergo *intensive training* according to their role and place within the general organisational and actional plan, and the assets and equipment undergo preparation and *maintenance*[2] in order to increase the combat and response capacity during crisis situations or at war. The *operational capacity* of the military, public order and national security structures is achieved, *during the state of peace*, by bridging the existing deficits of forces, assets and equipment and, *during the state of crisis or war*, including by creating new structures according to the general framework relevant for the particular state. Under the current circumstances, of economic and social crisis, the capacity should be achieved *within the limits* imposed by the *"budgetary allocations"* – established by the country annual budget or, if the case, by the war budget – which has to ensure the conduct of the actions (missions) necessary to maintain public order and national security and of those planned to be performed along with other NATO forces.

The resources that are necessary to defend the country or to manage the issues resulted from any kind of crisis directly depend on the evolution of the economic and social factors in the country. Currently, there is a special dynamic in the economic, technological and social fields of security as well as in the military one in all the states of the world and, implicitly, in Romania.

Reality also shows that a change in the economic field does not necessarily entail the reformulation of the national strategy (or of the military strategy, the national public order strategy) or the restructuring of the national mobilisation system or of the national public order system. However, these systems should be permanently tailored as to adapt themselves to these economic, political and social phenomena, and the way of providing the necessary human and material resources should be related to the real existing possibilities at national and territorial level.

[2] *Maintenance* encompasses all the measures necessary to maintain and re-establish the state of proper use/function of assets and equipment according to their specific parameters.

Theoretical frames of reference relating to providing the resources for public order structures

Any kind of crisis (state of emergency, of siege, of mobilisation) is aimed at enhancing the *national power* (or the *power* of a territorial area etc.), a concept that can be defined as a sum of potentials, such as the economic, military, demographic etc. ones. On the other hand, the increase process focuses on meeting, in different stages/terms, the needs for resources in all the fields in order to properly manage the emergency/crisis situation and to re-establish the public order and national security.

The increase in operational capacity requires thorough planning as far as providing resources is concerned, starting in the state of normality, so that it could be effective when the situation requires its performance. Alongside planning, one should also take into consideration certain measures to facilitate the use of the current potential (economic, demographic, scientific, military etc.) to increase the response or riposte operational capacity. All these measures included in different plans are verified and tested during peacetime in order to establish whether they are viable and they can be corrected.

The increase in operational capacity presupposes a *set of activities* meant to be performed during crisis situations (or in case of a military conflict), in the situation of serious violations of the rule of law or in the case of natural disasters; these activities are progressively decided upon by the national (territorial) decision-making bodies in order to transform the existing means (human and material resources) into actional capacity; at the same time, they have to facilitate the timely production of supplementary means necessary to support the efforts of the involved structures and to provide the population with all it is needed for survival.

The military conflict is a hypothesis, but we should also think of a serious violation of the rule of law, which endangers the national security, resulting from the improper management, by central or local administration, of certain emergency situations generated by natural disasters, terrorist attacks or other causes, which compromise the exercise of power, the application of laws, endangering the state institutions and the population.

The efficiency of the increase in operational capacity depends on the way in which the actions are planned and the necessary resources are provided, by including them in the development plans (national or regional/local), on the measures taken to bridge the gap between the necessary resources for managing the situation and the existing ones; planning has an important role in the process of foreseeing the necessary measures to be taken for the crisis situation resolution and the alternatives which better respond to exceptional situations.

The main problem related to planning the increase in operational capacity[3] is to guarantee that, when the crisis situation emerges and develops, the personnel, equipment and assets that are requested by the relevant structures can be provided, according to the specific scenarios and hypotheses anticipated for each and every type of crisis. These studies, scenarios and hypotheses (at national and regional/local level etc.) are meant to anticipate, as real as possible, the complex situations that should be managed during a crisis situation, and they are not aimed at increasing the current strength to the level of future requirements (which would be very expensive for the state), but at establishing the pace and the transformation process of different potentials into operational capacity/strength that should be available when needed by the structures involved in managing these situations.

An analysis of the main national resources involved in the process of transition from the state of peace to that of war highlights the fact that these *national resources (human and material)* are part of the non-military forces and means, such as the political, diplomatic, economic and financial, demographic, structural and territorial, moral, geographic, technological, information ones, to which are added the military ones, existing at a certain moment, which can be employed by the society to meet defence needs.

Political resources represent the political capacity of a state to mobilise and use all the material and human resources of a society and to act timely and efficiently to manage all the serious problems at the entire society level, both at a certain moment and in the future. From the military standpoint, political resources include all those components of the political forces that have the capacity to realise and employ the society efforts in order to peacefully solve conflicts and, if the conflict escalates, they decide the recourse to the components of the national defence, public order and security system.

By the link between the political resources and all the social and economic fields of society, they strongly influence the operational capacity of all the involved structures and can refresh the human, material and spiritual resources that are necessary when a crisis emerges.

Diplomatic resources include the agreements and the bi- and multilateral relations of the Romanian state, as well as the agreements, conventions and treaties to which our country is party and that could contribute to the moral and material

[3] In M. Robu, M. Buşoi, M. Cioran, *Teoria managementului resurselor în situaţii de criză sau conflict*, Editura Ars Docendi, Bucureşti, 2003, pp. 56-57.

support of the measures and actions meant to defend the country. Diplomacy is the main mean for promoting peaceful relations between states and, in this context, it represents the state abroad. It results in the collaboration between states, safeguarding and defending the rights and interests of the state in its relations with other states, alliances, international political and judicial organisations, and ensuring the information of the leadership on certain events that could affect the security of the state.

Economic and financial resources comprise the material, energy, technological and financial elements of the society, which exist at a certain moment and can be employed to support national defence. All the material, natural and financial resources are considered. In order to assess the current level of these resources, specific indicators are used such as: potential indicators (referring to the capacity of the economy to meet the requirements of the normal development of social and economic activities, as well as of those relating to operational capacity augmentation), level indicators, dynamic indicators, structural indicators etc.

Demographic resources represent the determining factor of the national defence capacity and, implicitly, of the public order structures operational capacity. They comprise (especially as far as actional possibilities are concerned) the population able to sustain economic, political, cultural and military efforts, seen in its complexity and evolution (in terms of number, density, territorial distribution, structure, age etc.). The demographic resources ensure the performance of all economic, political, social and military activities as required by the state of exception.

The optimal use of the demographic resources in crisis situations concretely refers to their rational distribution by strictly relating the population mentioned in the operational capacity increasing plans to the population employed in the national economy (both in the state and private sectors) in order to maintain an optimal balance between production and consumption.

The main methods to optimally use the human resources in economy, in crisis situations (during the state of mobilisation or the state of war) are: mobilisation at the workplace, according to the strategic importance of the respective institution and of the proposed functions; militarisation of economic agents; call for providing services; labour force redistribution and training; appropriate use of the available labour resources (women, young people, students, retired persons, unemployed persons etc.); increase in the work schedule by shift work.

All the above mentioned methods should be well substantiated in peacetime and their implementation requires an appropriate legislative framework; in our country this framework is regulated by certain laws, emergency ordinances, governmental decisions and methodological norms to implement them.

Information resources express the capacity of the information systems belonging to different departments and ministries to ensure, both in peacetime and in crisis situations, the collection, analysis and synthesis of the data that are necessary for the timely awareness of the international political and military situation, of the internal realities (natural disasters, calamities, rebellions etc.), and of the foreseen intentions of terrorist groups (persons). The development of the economic, social and other kind of activities dealing with data transmission, storage and processing has generated an unprecedented diversification in the nature of information, simultaneously with the exponential growth in its volume. The word *information* has become a factor related to a possible potential because the *information theory*, processes, structures and different approaches to information are often mentioned. It is a phenomenon that affects, more or less directly, almost every field of the society and, in this regard, it will contribute to the consolidation of the *Information Age* in the 21st century.

In relation to ensuring the necessary resources for the operational capacity increasing process, certain *economic concepts and categories* should be detailed (defined).

1. The economic potential, in its broadest sense, means work, production and action capacity[4]; at *macro* level, the economic potential represents the *maximum possibilities of the state to meet the society material needs in the given social and natural conditions*. This potential takes into account the opportunities available to the society at a certain time to obtain the maximum of goods and to provide services of a specific structure and quality to meet the material and spiritual needs of the society[5]. It is an extremely complex economic category that includes not only the human and material resources involved in the economic circuit but also those that virtually exist in the national economy, which are known but have never been used; if necessary, they can be used in an emergency situation. The economic potential also represents the degree of human and material resources capitalisation, meaning the economic strength of the country; it decisively influences the national (territorial) defence (intervention) potential that is necessary in an exceptional situation.

2. Defence capabilities and mobilisation reserves[6]: economic operators and public institutions, according to the objectives included in the *National Economy Mobilisation Plan*, and in the current and future programmes, set, create

[4] In Vasile Breban, *op.cit.*, p. 303.

[5] ***, *ABC-ul economiei de piaţă moderne*, Bucureşti, 1991, p. 136.

[6] *Law no. 477/2003 on the preparation of the national economy and territory for defence*, 4th section.

and preserve, since peacetime, *mobilisation capacities and reserves* needed for implementing the planned activities[7].

In order to achieve the mobilisation capabilities in industry (as well as in other fields), the consumer needs during crisis situations (emergency, siege, mobilisation or war) are taken into account, meaning the consumption of technical and material means (armament, specific and intervention equipment, communications and IT systems), designed to re-establish and maintain the operational/actional capacity of the combat human resources, the consumption of production equipment, consumer goods, services, means designed to replace the material, technical and scientific products lost or damaged as a result of the crisis situation.

According to the law, *mobilisation capabilities* include the specialised production lines, services and technical facilities existing in industry, transports, communications, health, telecommunications, as well as the storage places for the defence capabilities and for the state/mobilisation reserves. If economic operators want to change or disable certain defence capabilities (or in case of a division or merger) they must notify the National Administration of the State's Reserves and Special Problems or its territorial structures.

3. Mobilisation reserves are public property and include raw materials, materials, semi-manufactured goods, machineries, tools, equipment, instruments, food and industrial products, long manufacturing cycle products or insufficient products, which are needed to meet the requirements of the institutions with responsibilities in the field of defence, public order and national security[8]. They are provided by domestic production or by import and they are kept by economic operators. This category also includes the technical documentation regarding the production of military equipment and assets, weapons and ammunition, which are not manufactured in peacetime. Basically, the state reserves are assimilated (according to the law) into the mobilisation reserves as follows: in peacetime – the quantities that are intangible stocks, intended for structures within the national defence, public order and security system, in wartime – the quantities that are kept, at that particular time, in warehouses.

The materials in the mobilisation reserves can be used to eliminate the consequences of disasters, or when the state of emergency or siege is declared. The accumulation, update and replenishment of the stocks belonging to mobilisation reserves are performed annually by the National Administration of the State's Reserves and Special Problems, according to annual plans, and supported by the industrial economic operators that stock them.

[7] *Ibidem*, art. 12, 13.
[8] *Ibidem*, 5th section.

4. Requisitions of goods and services provided in the public interest[9] represent an exceptional measure through which specialised authorities oblige, according to the law, economic operators, public institutions, or other natural and legal persons to temporarily cede certain movable or immovable property. This activity is performed when partial or total mobilisation as well as war or the state of emergency or siege is declared, or to prevent, localise or eliminate the consequences of disasters. Requisitions and the call for natural persons to provide services in the public interest are performed by the military centres (in case of mobilisation or war), or by the prefect in case of prevention, localisation or elimination of the consequences of disasters.

The persons called to provide services in the public interest are usually reservists, who are available, according to the data of the military centres, and are not included in mobilisation plans, at workplace, or have no military obligations. In order to solve the problems regarding requisitions, at central level, a Central Commission for Requisitions has been established and, at national level, Joint County Commissions for Requisitions, whose aim is to determine the quantities of goods that can be requisitioned, the way to distribute them according to the requests of the structures belonging to the defence, public order and national security system, and of the economic operators that have mobilisation tasks, and also the procedure in case of claims and disputes.

5. The economic conversion of certain economic operators is a complex activity, which is prepared in peacetime and is applied in exceptional circumstances (mobilisation or war), in most branches of the economy, not only in the field of human and material resources, but also in the consumption field; thus, certain economic operators, specialised in manufacturing construction equipment or means of transport, may convert into manufacturing spare parts and kits needed to repair or manufacture armoured vehicles, aircraft engines, weapons etc.; as far as human resources (labour force) are concerned, they can partially (or following training) perform certain economic and military activities; as for consumption, a part of it is transferred from the civil consumption to the military/specific consumption, in order to meet the increased requirements of the structures belonging to the defence, public order and national security system, requirements that are determined by the action in progress.

The *utilisation value* of the facilities, equipment and machines belonging to the economic operators that converse into military/emergency production, expressing the *conversion rate*, should be considered; it is established according

[9] *Law no. 410/2004 on supplementing and amending Law no. 132/1997 on the requisition of goods and services in the public interest*, art. 1.

to the degree of coincidence between the finished product manufactured in peacetime and the one manufactured after conversion. If the economic operator has a low conversion rate, it requires high expenses in order to converse into special production and a longer period for the conversion process; the evolution of the phenomenon of conversion is interesting; nowadays, it is noticed that in the most modern states having a strong defence industry, because of the continuous reduction in the budget allocated for defence, public order and national security structures, many relevant companies in the field, in order to survive, manufacture goods intended for the civil society, meaning the defence industry conversion to the civilian one[10].

The role of human resources is vital in ensuring operational capability. The accession to NATO and the EU imposed a new structural model and established new conceptual categories, particularly regarding the management of human resource development, which is actually the most important resource that can be available to NATO and the EU. In the light of these requirements, each chief/commander (regardless of echelon) has to know the categories of personnel structurally involved in his organisation/structure, to establish and maintain a modern and efficient operational capability, in order to be able to accomplish the assigned mission. Through the human resource management the *personnel support* is attained, in a unitary conception regarding the use of forces and means. Human resources represent one of the main elements of the process of achieving the necessary and appropriate operational capacity in order to safeguard national sovereignty and independence, constitutional democracy and the rule of law.

Within the Ministry of Internal Affairs, human resource management is performed through joint actions with complex types of forces, with the aim of establishing the ways in which a structure must support, protect or complement another operational/intervention structure of forces.

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The process of increasing operational capacity within the public order structures includes the whole range of activities that are planned, organised, and developed, according to a unitary conception, since peacetime and throughout crisis situations, in order to provide them with all the necessary human and material resources to transform the structures existing in peace establishment into structures manned and equipped for war, by augmenting existing structures and establishing new ones according to the plan simultaneously with maintaining and recovering the operational capacity while conducting public order actions.

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[10] ***, *Revoluţiile industriale şi potenţialul militar al statelor*, Editura Militară, Bucureşti, 1995, p. 170.

In all the structures belonging to the national defence, public order and national security system there is a constant concern of responsible entities for the modernisation of the system designed to increase the operational capacity and of the mobilisation system structures.

In this regard, they act accordingly to: a) *create a coherent system* for the selection, professional training and selective promotion of personnel, to meet the human resource needs; b) *adjust own systems* for filling resource needs to the specific conditions under which the structures have to ensure the required response capabilities in order to carry out their missions according to their field of responsibility; c) *review concepts and dispositions*, as a result of the change from structures based on conscripts to structures based on professionals.

Basically, the increase in operational capacity is a complex process that takes place in the following dimensions: human (recovery of mental and physical capabilities, training and reintegration of persons whose action capacity has been temporarily affected); material (returning to normal state or replacing the combat assets, military equipment, means of transport etc.); organisational (development and implementation of an optimal system, designed to ensure the human, material, financial and informational resources needed for the regeneration of the military structures affected while carrying out specific missions); normative (adoption of the appropriate technical and legal rules in order to accomplish the process of getting the public order structures at their initial functional parameters) and social (augmentation, under the voluntary military service conditions, has a significant impact on the population from which the future professionals and the reservists, from all categories of personnel, are recruited in order to set up the human resource reserve).

At the same time, the structures augmentation is being designed, organised and conducted in full agreement with a series of principles. We highlight the following principles: a) structures are resourced simultaneously with the actions development; b) usually, a structure starts to be resourced when its troops, as a result of the recorded losses, go below 85% of the war needs; c) this activity should be performed with regularity, according to the emergency required by the structure role, place and missions, in combat or operative disposition; d) operational structures prevail in the process of being resourced, in human, material, informational and financial terms.

Moreover, resourcing the structures that have suffered losses while performing their missions abroad represents an activity for which the administrative structures are held responsible, not only in order to recover the personnel mental and physical capacities, to train and reintegrate the personnel in their initial structures, but also to restore the specific assets, equipment and materials to normal operational parameters, including the use of other human and material resources made available by the relevant structures.

However, lately, the increase in the operational capacity of public order structures/forces is closely related to their reorganisation process, from what they used to be, meaning numerous troops, combat equipment and weapons, as well as a strict specialisation in conducting actions, to flexible structures that have cutting-edge or modernised equipment, highly trained ones, capable of successively performing different roles during crisis situations – from humanitarian aid to high intensity missions.

Therefore, public order structures, performing domestic or international missions, should have a modern and flexible organisation, highly trained personnel, in order to simultaneously or successively accomplish a wide range of specific tasks according to the operational and combat field situation, as well as specific assets and modern armament, adapted to the conditions under which missions are carried out.

In the current general context for maintaining and re-establishing public order within normal parameters, providing the public order structures with human and material resources acquires specific features which should mainly take into account the highly complex and dynamic character of the actions and the complexity of the logistic missions, which entails the integration of the logistic structures effort into the general effort of the operational structures to achieve success in operations.

These requirements compel the logistic structures to reassess their organisation, their forms and methods of action in relation to the presumptive evolution of the conflict, from the normal state, to a nonviolent and a violent state which, from the standpoint of public order forces, are quasi-permanent states and could embrace various forms in all socio-economic fields and environments, without necessarily having a direct military specific form, according to the classic approach.

Life has shown that, starting with religious, ethnic, cultural, sports conflicts, and ending with socio-economic ones, these states can anytime degenerate in large-scale and violent conflicts. Many times, law enforcement forces are surprised by the sudden shift from nonviolent to violent actions. Therefore, we consider that logistic structures, by means of preventive measures that include the early organisation and planning, since peacetime, of the actions meant to provide the necessary human, material and financial resources, should ensure the maintenance and, in case of crisis, the increase in the public order structures operational capacity, in compliance with the established levels.

The public order structures education and training so that they could meet the required level of operational capacity, employing a permanent system of forms and methods, will significantly reduce the period required for the units that are augmented/established during mobilisation to get operational, and will ensure, for the operational structures personnel, the specific skills required to carry out their specific missions at the level of the missions fulfilled during the state of peace.

The set-up and the use of the existing resources in the fields of operational/strategic interest provide a certain autonomy for the public order structures, reducing their dependence on higher echelons, the necessary time for the resources to reach to the beneficiary, and also the risks generated by transportation at long distances. Nevertheless, the establishment of the reserves, according to the zonal/territorial plan, should not affect the principle of centralised/single leadership, as it may result in unjustified stocking by certain structures that are not involved in decisive actions, and also in failing to provide the structures in real need with the necessary human and material resources.

The resourcing system, according to the principle of sufficient resources in peacetime and at war, should ensure the establishment, management and evidence of the resources needed both for the armed forces augmentation in case of mobilisation and for the recovery of the units combat capacity, following losses suffered during military operations.

In order to maintain the public order structures operational capacity, during mobilisation and the specific actions conducted in crisis situations, filling human and material resources needs should meet certain requirements, as follows: to be continuously performed in order to prevent ongoing actions from being stopped or slowed down and the logistic system from being overwhelmed; to be timely; to obey the principle of priority, taking into account the structures place, role and tasks within the operational/tactical disposition; and, last but not least, to be covert.

AIRPOWER IN MILITARY ACTIONS

Lieutenant Colonel (AF) Petrică Ion HAVRESCIUC
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Any approach to airpower is considered. It can be represented by a range of capabilities used by each nation in military operations to meet political-strategic purposes, in terms of preserving territorial sovereignty, by denying hostile actions and applying sanctions against an enemy violation of national airspace. Moreover, these capabilities can also be used in operations against small-scale forces, in areas where terrorist groups elements or their partisans can be found, in counter-terrorist, as well as anti-terrorist actions, in air patrolling, neutralisation and specialised air support missions for special operations.

***Keywords**: airpower; military actions; air force; asymmetrical threats*

In the past decade, the armed forces, considered among the most traditional tools for action of a state, have been confronted with changes unprecedented in this century: the need for changing the armed forces into a structure that is different from one meant just for defence, simultaneously with the need for financially sustaining the military effort in support of peace and regional stability.

Preventive diplomacy, establishment of forces especially meant for preserving international security and engagement of armed forces in new types of conflicts bring about substantial changes regarding the role played by the armed forces in this century. The probability that the armed forces will be engaged in operations meant to carry out their basic mission has decreased significantly, while the participation of armed forces in a wide range of crisis management missions has increased.

In the past years, the re-conceptualisations in the field of state sovereignty and role have been significant, through the increase in the role of non-state actors, permeability of borders, integration and regionalisation processes, increasing interdependence between states and subsequent decrease in their capacity to provide their security unilaterally.

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The Place and Role of Airpower in Military Actions

The physiognomy of future conflicts has changed through the predominance of low intensity crises and ethnic and religious conflicts in front of classic conventional wars. Military intervention has become more and more specialised. Information technologies tend to replace nuclear deterrence, and the use of armed forces focuses more and more on the use of high precision tools, on gaining victory through surgical long-distance strikes and avoiding human losses.

The armed forces go through a process of passing from armed forces meant for defence to armed forces for security. The stability of the entire planet requires a long-term preventive approach, within which the military systems play an important role. The assurance of national security directly requires participation in keeping regional stability as a guarantee not only of the security of state borders but, most importantly, of democracy and continental security.

In the current geopolitical and geostrategic context one may notice a permanent concern of analysts and specialists in the field for figuring out the direction in which the military phenomenon evolves and, depending on that and on other factors, for building up viable and efficient national defence and security systems.

Moreover, the historical evolution of conflicts requires the reanalysis of the missions of the armed forces in the context of the substantial change in the use of the military tool, in keeping with the concept of effects-based operations. The interest in occupying a territory has been replaced by the one in influencing events. The need for being present has been replaced by the exigencies of controlling in order to influence and, ultimately, to intervene anywhere, as much as possible, without a physical confrontation between combatants, passing from the desire to cause substantial losses to the enemy to the one to avoid huge losses among own forces as well as to the enemy, especially as far as civilian population is concerned.

In this context, the air force will further play an important role in settling crises at any level of the conflict by gaining control over a part of the airspace of strategic interest, causing great losses to key elements of the military potential and combat disposition of the enemy and creating conditions for carrying out various combat missions by the other military services. At the same time, land forces operations and naval forces operations, rather than taking place simultaneously with those of the air force, they will usually be preceded by them.

The various ways of employing air assets make it possible for the national or multinational military leadership to deter and prevent an aggression, to adapt the dimension and intensity of air operations, carried out to manage crisis or conflict situations, in keeping with the political command.

When using the air force in conflicts, gaining air superiority, planning effect-based operations, gaining information superiority, launching surgical strikes, being mobile are seen as essential features of the strategic perspective for using these forces irrespective of the armed, symmetrical or asymmetrical conflict. Gaining a certain degree of control over the airspace or, as much as possible, air superiority (even if not permanently) has as main purpose crushing the enemy air defence and, at the same time, keeping the risks brought about by enemy air strikes at a minimum level. Moreover, the air force provides special operation structures as well as other structures with specialised expertise and adequate support.

In order to reach these desiderata, it is essential that the needed assets are provided in order to neutralise enemy air defence and thus to ensure freedom of action for own forces, as well as in order to retain the efficiency and persistence of air operations beyond the space possibilities of enemy air defence.

Through the direct and indirect effects of air operations, it is provided the possibility of the joint use of armed forces. The direct effects of air operations enable the increase in the combat capability of land forces, and the indirect ones consist in isolating and organising the space in which the combat operations and actions of land forces will take place.

Through offensive use, through correctly choosing (selecting) the target that must be struck as well as the weaponry depending on its effectiveness, the air force can exert a decisive influence upon the intentions of a possible aggressor. Through this, the air force becomes the key element for dominating a conflict and for deterring the enemy.

Information superiority is based on:

- integration of manned and unmanned research systems, as well as space/cosmic ones;
- real-time attainment of a battlespace picture, which includes the recognised air picture (RAP);
- early warning;
- effective use of information by providing information and carrying out information operations;
- prohibition of the use of C4ISR systems by the enemy.

Accurate engagement provides an increase in the numbers of hit targets during a sortie/aircraft and maximum effects with a minimum of means, the elimination of the risk of fratricide and the one related to collateral damage and, ultimately, the achievement of significant effects both at the military and at the psychological level.

Mobility, especially vertical manoeuvre, has become necessary in almost every military action. Mobility enables military specialists to plan force deployment within or in the area of interest adjacent to the theatre of operations, anywhere and in any circumstances. It also allows the setting up, in air operations/joint operations, of an air bridge and of a military capability of effective and timely movement. Combat support provided by the use of the air force enables the execution of sensitive operations, that are persistent and effective in all conditions.

Tactical-technical features as well as the possibilities of using air assets in combat enable them to hit any target. Countering air assets can be made only with the same type of assets. Therefore, to airpower one can only oppose elements of airpower. Alliances or single members may be intimidated if they do not have a credible airpower at their disposal.

The importance of airpower in both conflict prevention and their speedy resolution is given by its ability to cover a broad range of missions, to accurately hit targets placed throughout the entire theatre of operations, to react rapidly and hence to deter any threat. Through its ability to react rapidly and to discourage, we believe that the importance of airpower will increase or at least remain at a major level in the following period.

The Use of Air Force during Peacetime, in Crisis Situations and at War

In the space of war, of armed confrontation, viewed from different angles, it is highly important that the parties involved create or avoid disproportions. It is what in technical terms is called *"balance of power"*. We can say that at this point disproportions between opponents are so high, especially in terms of quality, that it is difficult if not impossible for predictability to be an asset in decision-making.

According to Herve Coutau-Begarie[1], air strategy combines conventional developments with alternatives development, can combine the strategy of all-out war with the one of the limited conflict, can follow the offensive path or the defensive one, can combine action with implicit dissuasion.

"On the coordinates of the non-contact war strategy, which is an effect of the new super-sophisticated technologies, air operation strategy exercises a limited, accurate engagement, hitting vulnerable places (without collateral damage or with minimal collateral damage) and vital centres so that enemy reaction becomes impossible or ineffective,

[1] Herve Coutau-Begarie, *Breviaire strategique*, p. 1, at www.stratisc.org/pub/Breviaire-10.htm.

and, on the opposite side, the use of the most various means and actions – terrorism, guerrilla or all-out or civil, information, psychological, media war etc."[2].

Thanks to the multiple uses as well as to the capabilities that make it unique, the air force may be used during peacetime, during crisis, and especially at war.

During peacetime, the air force provides an adequate level of security nationally and regionally or globally. In this situation, the air force is designed to deter any attempts of peace escalation, oversees the compliance with all disarmament agreements and plays an important role in implementing confidence, stability and security building measures. Many states attach great importance to this and are part of the *"Open Skies"* agreement, which enables surveillance assets to use the airspace of signatory states and authorises information sharing.

In crisis situations, the air force, due to the ability to project force anywhere in a short time and because of its power, has an important role in regard to crisis management. Most of the time, it is not necessary to use force in order to stabilise the international tensions. *"The way of acting during the crisis includes, in a gradual development: alert, displaying intentions, supporting ally or friendly states, international rescue, stabilisation intervention, deterrence, non-lethal coercion and punitive action. In case of alert, the air force is able to give advance notice to those who are preparing for aggression and take preventive measures as required"*[3].

When the situation requires it, and the political decision aims at preventing dangerous conflict situations, the air force can perform flights in which it shows its presence or, if things degenerate, it can turn to a higher state of combat in order to act at any time.

In *tense situations*, the air force can perform missions in support of allied states, mainly transport missions. Additionally, if the situation requires it, there can be approved requests for over-flight and for the use of own airfields by the forces of these states, as well for specific search and rescue missions.

In *dissuasion actions*, air assets will be used to fly over the territory of the potential aggressor for demonstrating that an attack can take place at any time. In this way, the potential aggressor may be prompted to change their decision to escalate a possible conflict. In the same idea, for intimidating a potential aggressor, the air force can carry out non-lethal coercion missions, which involves the use of force both on the aggressor and on those who support and encourage them.

At war, the air force plays a decisive role in the success of operations carrying out missions covering all types of actions: aerial reconnaissance, destruction, lethal

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[2] Dr. Constantin Moştoflei, Vasile Popa, *Întrebuinţarea puterii aeriene la începutul secolului XXI. Realităţi, tendinţe, implicaţii*, Editura UNAp, Bucureşti, 2005, p. 16.

[3] *Ibid*, p. 19.

coercion, prohibition or limitation, delay, diversion, demoralisation. An important asset of the air force, during its use in military actions, is represented by its ability to pass easily from one mission to another.

"In the twentieth century, airpower has gone through technological developments that enabled an increase in possibilities and, hence, in the ways of using it. After it was initially used in reconnaissance, observation and bombardment missions, aviation passed to "flexible response", focused on strategic airlift, then engaged in missions regarding electronic warfare, aerial refuelling, command, control and airborne detection etc. and then it was used for cumulative effects airstrikes, combat search and rescue missions, civil protection"[4].

The direct and indirect effects of air operations make it possible for the armed forces to be used jointly. The direct effects of air operations enable the increase in the combat capacity of land forces and the indirect ones materialise in the isolation and preparation of the space in which the combat operations and actions of land forces will take place.

By the offensive use, the proper selection of the target to be hit and the effectiveness of weapons, the air force may exert a decisive influence on the intentions of a possible aggressor. Therefore, the air force becomes the key element to dominating a conflict and discouraging the opponent.

With the proliferation of terrorism, airpower began to be used against this latest threat as well. In general, there were used unmanned aerial vehicles (UAV) for reconnaissance, electronic warfare, land targets illuminating/marking, air defence deception, as well as piloted assets for destroying training camps and other facilities.

After the terrorist attacks of 11 September 2001, airpower began to be employed in the fight against terrorists, hitting their vital centres and their centres of gravity. The war waged against international terrorism has entailed the use of the air force in different types of actions, which has led to drawing some conclusions with regard to some shortcomings. For the future, dealing with these shortcomings can lead to a more efficient use of the air force in peacetime, crisis situations and at war.

The role of airpower of ensuring air safety is, in certain circumstances, more relevant in peacetime than in war situations, mainly because, in peacetime, the goals are reached by simply maintaining the airpower capacity at credible levels (at least 80% the potential), while, at war, violence directed on enemy targets is the one that matters.

[4] *Ibid*, p. 21.

Asymmetrical Threats and Airpower

The nature of future conflicts will not differ much from that of today's conflicts. History has shown that the features of each conflict are different and they will most certainly undergo some changes, but the nature of war as a human enterprise will remain largely unchanged.

Future opponents, parts of some conflicts, will cause forces to adapt just as they adapt to the new types of conflicts. They will attack their targets in the vulnerable points, in the areas and through the least expected ways. The one that influences the type of actions that are intended to be taken as well as the ability to implement them is the environment in which these attacks are carried out.

The transformations of the security environment, with distinct emphasis on the multiplication of regional conflicts and crises generated by violent forms of expression of terrorist cells, armed clans, extremists, cartels and mafia-type groups require that the aerospace power is transformed so that it could enable an effective management of asymmetrical threats. Today's conflicts can occur as a reaction of opposition to the measures undertaken for globalisation as well as a reaction to the manifestation of total superiority.

The implications of such a complex, diffuse context require that nations that have a real aerospace component available (the United States, the UK, Russia, France, China, Germany, Spain etc.) transform their forces, procure them with conventional and unconventional resources, set up quickly projectable capabilities for reaching the theatre under any circumstances, as well as project rapidly accessible information networks, which should enable data dissemination at all three levels of the conflict, depending on priorities and needs. It is also required the establishment of an organised, equipped and trained air force that could successfully counter the threats from asymmetrical opponents, by ensuring operational superiority in dealing with terrorists and guerrilla, in the combat carried in the gray areas, in the airspace, land and sea protection.

All these specific risks and threats of this century increase in complexity the use of the air force. Airpower strategists are faced with new types of dealing with conflicts, with direct implications regarding the strategy of the forces, assets and actions, the use of new technologies and last but not least the adoption of major doctrinal changes.

The access of terrorist elements and of states that support these groups to the assets and technologies which, by their nature, are considered part of the category of asymmetrical ones requires that aerospace power is continuously renewed and improved. The advantages provided by the technological progress to the power of the third dimension, in low intensity conflicts, are greatly diminished, the assets and pieces of equipment of the aerospace power being vulnerable to ground threats, consisting of light weapons and less expensive missile launchers, air superiority being to a certain extent relativised in the fight with guerrillas and terrorism. Future opponents will exploit interstate borders and other political, economic and tribal layers with the purpose of taking shelter to protect from the conventional military capabilities, which complicates operational planning pretty much. The actions carried out in such environments will support or attack state and non-state actors.

Once defined the general environment, one must understand the context of the area or the interests in the area in order to obtain a complete picture of the strategic issue. In many occasions, the environments in which they operate are clearly influenced by countries that are external to the direct conflict, which could have an interest in it or in the area. In many cases, the opponents will fight without any rules out for the mere reason that they cannot succeed nor even survive in any other way.

In such an irregular conflict, in which the assets involved are unconventional, the involvement of aerospace power may take the form of external defence missions, counterterrorist, counterinsurrectional missions or stabilisation and reconstruction operations.

The multitude of stability operations will assign the air force to carry out the most varied missions:

- prevention;
- prohibition;
- stabilisation;
- surveillance;
- protection;
- civil emergency;
- post-conflict (protection of the population and democratic authorities, support for reconstruction).

In their planning and execution, decision-makers are faced with significant differences between the conventional capabilities of aerospace power to deal with high-intensity conflicts, in which it is preferred the direct use of force, combined with manoeuvre and focus of firepower on critical points, and the different requirements of low intensity wars, whose features most of the time do not provide a physical point in which force can be applied.

Aerospace power is in a position to fight a versatile, complex and polycephalic opponent, a continuously changing and highly adaptive one, whose activity is carried out by means of a network structure, dispersed organisationally, facilitated by the use of modern information and communication technologies. Exploiting the unrestricted freedom of transnational movement made possible by globalisation, the terrorist threat rewrites the security paradigm, by allowing the asymmetrical attack on the strategic objectives of the powerful countries in the world.

Discovering, tracking and neutralising these opponents has become a priority task of the aerospace power, by the use of the entire technological arsenal available, together with the activity of government intelligence and security agencies. The result of the joint efforts allows the execution of precise strikes on the centres of gravity of these state or non-state structures.

The recognised ability of the airpower – to hit the strategic centre of gravity of the enemy – of the international coalition member is a prominent asymmetrical advantage. The ability to perform surgical strikes is an invaluable asset in counterinsurrectional operations, other advantages consisting in the ability of aerospace power to carry out information operations, cyber operations, intelligence collection operations, surveillance and reconnaissance and global mobility operations.

"The strong points of air superiority, strikes, transport and aerospace component connectivity on a global scale, used as a whole, in a joint and inter-institutional context, enable the achievement of certain degrees of excellence required by the features of such wars"[5].

The threats and risks involved by the asymmetrical warfare (terrorist, guerrilla, paramilitary etc.) reach complex forms, difficult to define, requiring that the airpower adopts certain innovative strategies and approaches that need doctrinaire changes, in keeping with the nature of the actions of certain new type, difficult-to-counteract opponents.

Alliances or coalitions that are formed, their constituent states as well as the other states of the world are motivated to make essential changes in this century in the air force. These changes will seek to obtain a flexible, dynamic air force, with higher use in theatres of operations.

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The threat and use of force must be done rapidly, selectively and decisively. Force must be applied in such a way as to deter aggressors and secure allies and partners. This requires a force structure that shows speed, power, endurance, interoperability and, last but not least, surgical precision.

[5] Vasile Popa, *Evoluţia mediului de securitate, riscuri, ameninţări şi elemente acţionale în dimensiunea aerospaţială*, Editura UNAp *"Carol I"*, Bucureşti, 2009, p. 42.

A correct assessment in accordance with the experience gained from the involvement of airpower in more or less recent conflicts, as well as regarding the theories developed in the field of air theory and strategy can provide solutions in support of the important role airpower plays in fighting symmetrical or asymmetrical opponents.

The defining elements of the concept of airpower must be interpreted not only from a technological perspective but also in terms of the effects it could generate on aspects of human nature because of the use of the third dimension, aspects that may influence directly the outcomes of the action.

Airpower can make peace more stable and longer, deterring threats and it can also make war shorter, influencing it directly and significantly, given the fact that its vertical dimension is slowly but surely moving towards space power.

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LEADERS IN DEVELOPMENT – Managing Change in a Dynamic World –

Lieutenant Colonel Dr Iuliana-Simona ŢUŢUIANU

This article is entitled according to the name of a competitive, world-class Executive Education programme offered by Harvard University's John F. Kennedy School of Government, primarily aimed at describing the curriculum, main expectations and outcome of this challenging and stimulating learning experience.

The author graduated from this programme in June 2013. Her insights are listed below, in an attempt to familiarise the readers with the acquired knowledge, skills and enhanced understanding of the tasks of leadership in promoting change, meeting complex and economic challenges, and transforming organisations.

***Keywords**: leadership; change; development; knowledge; negotiation; persuasion; strategic management*

Admission, Curriculum and Target Audience

Leaders in Development is a two-week programme intended for political leaders; senior-level policy makers and managers; executives of political and public interest organisations; and leaders of non-governmental organisations from all over the world. Participants are selected to reflect a broad range of leadership positions from the public, private, and non-governmental sectors. They are united in that they each hold positions of leadership, work in challenging political, economic, social and military environments, and have a desire to use their positions to promote equitable and sustainable change in their countries.

To apply for *Leaders in Development*, one has to visit Harvard University's website[1], and needs to know that the admission to the programme

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[1] To apply for *Leaders in Development* or for details on programme dates and application deadlines, please visit www.hks.harvard.edu/ee/development.

is highly competitive and based on professional achievements and organisational responsibility. Besides a solid professional background, a number of essays reflecting the candidate's expectations from Harvard University and his/her medium- and long-term career goals are required.

Leaders in Development is designed for public leaders whose responsibilities place them at the centre of today's complex issues. In terms of expectations, during the programme, participants will:

- Sharpen problem solving, analytic, and strategic action skills to help them plan, introduce, and sustain major policy and institutional reform.
- Consider new ways to strengthen representative politics and market economies, and manage the challenges of globalisation.
- Share experiences with their counterparts in other countries in a collective search for effective responses to change.

Each day, participants prepare and discuss cases that highlight the difficult decision-making situations faced by leaders in countries in which major political and economic transitions are occurring. In small group and class sessions, they work together with faculty to analyse the economic, political, and organisational factors that surround such decisions. Participants also develop and present their own cases of situations that have taxed their leadership skills and called forth innovative solutions to difficult problems.

Fifty-five participants representing 27 countries from all over the world graduated from the 2013 *Leaders in Development* programme. The lectures were mainly focused on the following issues: *Leadership and Authority; Technical and Adaptive Challenges; Leading in Challenging Times: Thinking Politically; Global Issues: Political Settlements and the Arab Spring; Negotiation & Creating Value through Negotiation; Leadership in Complex Multi-Party Negotiations; Persuasion; The Euro Crisis and the Debate over Austerity; Achieving Sustained Growth; Leading in the Midst of Crisis; Strategic Management.*

Leadership and Authority

Marty Linsky, Adjunct Lecturer in Public Policy, has been a faculty member since 1982, except 1992-1995, when he was Chief Secretary/Counselor to Massachusetts Governor William Weld. He teaches exclusively in the School's executive programmes and chairs several of them. He co-authored, with Ronald A. Heifetz, *Leadership on the Line*, and co-authored, with Ronald A. Heifetz and Alexander Grashow, *The Practice of Adaptive Leadership*. In the 2013 *Leaders in Development* programme, Mr. Linsky's presentations explained in a very interactive and productive manner why leadership is so dangerous, with a focus on the faces of danger (marginalisation, diversion, attack, seduction) and the perils of adaptive change. The main conclusion was that leadership requires not only reverence for the pains of change and recognition of the manifestations of danger, but also the skill to respond. The course participants were required to think about the current leadership challenges they are facing, what they have done to make progress on it, what they have been unwilling to do and why, what their definitions of leadership are and what is the difference between the exercise of leadership and the exercise of authority.

Leading in Challenging Times: Thinking Politically

Professor Linsky continued his presentations on leading in challenging times, by emphasising the essential aspects of thinking politically in the exercise of leadership. Relating to people is central to leading. If you are not naturally a political person, then find partners who have that ability to be intensely conscious of the importance of relationships in getting challenging work done. Let them help you develop allies. Then, beyond developing your base of support, let them help you relate to your opposition, those people who feel that they have the most to lose with your initiative. You need to be close to them to know what they are thinking, and to demonstrate that you are aware of their difficulty. Accept casualties, being aware of the fact that an adaptive change that is beneficial to the organisation as a whole may clearly and tangibly hurt some of those who had benefited from the world being left behind. These are some of the lessons learned emerged from an amazing lecture, based on the very truth that, in everyday personal and professional life, the nature and quality of the connections between human beings is more important than almost any other factor in determining results.

Global Issues: Political Settlements and the Arab Spring

Ishac Diwan (Faculty Co-Chair) is Lecturer in Public Policy and Director for Africa and the Middle East at the growth lab of the *Center for International Development*. In 1992, with the coming of the Oslo Agreements, Diwan joined the Banks Middle East department, first as the country economist for the West Bank and Gaza and later as a regional economist. He contributed to the Economic Research Forum and the Mediterranean Development Forum.

Professor Diwan's lecture on understanding revolution in the Middle East and the central role played by the middle class presented the outlines of a coherent, structural, long-term account of the socio-economic and political evolution of the Arab republics that can explain both the persistence of autocracy until 2011, and its eventual collapse. He argues that the changing interests of the middle class would have to be a central aspect of a coherent story, on accounts of both distributional and modernisation considerations, and that the ongoing transformation can be best understood in terms of their defection from the autocratic order to a new democratic order, which is still in formation. A review of the evidences for the case of Egypt was more than illustrative, first to look at changes in opinion and ask whether these are consistent with the predictions of the theory, and second, to examine the corporate sector before and during the uprisings of 2011 in order to understand better the performance of *"crony capitalism"* and to evaluate whether it may have affected the incentives of the middle class to defect.

Negotiation & Creating Value through Negotiation. Leadership in Complex Multi-Party Negotiations

Kessely Hong is a Lecturer in Public Policy at the Harvard Kennedy School and teaches in the areas of negotiation, decision-making and microeconomics. Her presentations during the 2013 *Leaders in Development* programme outlined strategies for realising all the potential from negotiation situations. Virtually, all negotiators want to reach integrative (win-win) agreements. However, most of them fail, resulting in money and resources being left on the table. The successful creation of win-win negotiation deals involves: perspective-taking; asking questions about interests and priorities; providing the counterparty with information about your priorities and preferences; unbundling issues; making package deals (not single-issue offers); making multiple offers simultaneously; structuring contingency contracts that capitalise on differences in negotiators' beliefs, expectations, and attitudes; and using pre- and post-settlement strategies.

In-class exercises on value creation were followed by a specific project *(Congo River Basin Project)* negotiation role-play. Each participant received confidential negotiating instructions for one of two roles in the project negotiation role play, a two-party, multi-issue negotiation. He/she was paired with a partner assigned the opposite role. To prepare for this class, the students were asked to read their confidential role instructions and answer a pre-negotiation survey, and also to consider real-life examples of value creation through trading on differences for the several types of differences outlined in the book titled *"The Mind and Heart of the Negotiator"* (by Leigh L. Thompson).

Participants learned that two-party and multiparty negotiations do share one important goal: the discovery of the *trading zone*. The trading zone is that moment in a negotiation when adversaries switch to become collaborative problem solvers.

In the trading zone, you and the other parties accept the notion that, at least temporarily, helping meet each other's interests will make it easier for everyone to achieve their negotiation goals. Whether you are navigating the trading zone with two, 10, or 20 partners, success usually requires that you: closely attend to each other's needs and interests; put forward proposals that incorporate valuable tradeoffs; suspend criticism and explore creative but nonbinding ideas; agree on problem-solving procedures.

A six-party, multi-issue negotiation exercise was finally played *(Deeport Project)* and each participant was assigned a specific role and given general information, confidential instructions and tips sheets. It was a terrific learning experience and the participants were welcome to prepare with others sharing the same role or to approach other students assigned to different roles (from his/her negotiation group only) to explore possible coalitions.

Persuasion

Gary Orren, Professor of Politics and Leadership at Harvard University, teaches and writes on public opinion, politics, and persuasion. He has worked in the United States and abroad as a pollster and strategist for candidates, interest groups, government agencies, corporations and news organisations, including the *New York Times* and *Washington Post*.

He began his lectures on persuasion by invoking the Greek philosopher Aristotle who argued that persuasion relies on the interplay of three critical elements: a logical, coherent, well-reasoned argument (logos); the speaker's personal strength, especially his character (ethos); and the frame of mind and feelings of the audience (pathos). Professor Orren highlighted ten principles of persuasion (the science and art of effective influence, in his view): clarity; know the audience; salience; analogies/metaphors; storytelling/demonstrations; counter-intuitive sources and arguments; authority/credibility; conformity/social proof; reciprocation; and liking (and emotional intelligence). As conclusions, the two responsibilities of persuasion – to be ethical and to be effective – were tackled as to give an answer to the biggest challenge: *Is persuasiveness fundamentally innate?*

In a more than productive exercise, participants were provided with a background note on the Civil War, the Battle of Gettysburg and Joshua Lawrence Chamberlain's conduct, being asked to evaluate which principles of persuasion were used effectively by the famous Colonel Chamberlain in the episode described in *"The Killer Angels"* (by Michael Shaara). Also, in support of the learning outputs, a movie was played as to better reveal the method of persuasion and other methods of influence used in this episode.

The Euro Crisis and the Debate over Austerity

Professor Ishac Diwan's lecture on this topic explored the overall nature of the crisis and policy options ahead. The crisis in the Euro zone is now a major threat to one of the world's largest economic areas, with the potential for dangerous effects on the global economy. The lecture was structured into five sections: the long-term context for the European integration project; the origins of the crisis; the current conjuncture; the structure of debates on what to do; and some final remarks on the interaction between capitalism and democracy. The purpose of the lecture was to provide an introductory map to the issues, with links both to economic thinking and to broader political and institutional questions.

Policy questions were raised around the task to write a column of 800 words for a serious newspaper arguing the participants' position on the following issues: the architecture of the Eurozone; the position of the German government; and the options for one of the countries in the Eurozone that is suffering clearly unaffordable spreads (including Italy, but not Greece).

Achieving Sustained Growth

Ricardo Hausmann is Director of Harvard's Center for International Development and Professor of the Practice of Economic Development at the Kennedy School of Government. Previously, he served as the first Chief Economist of the Inter-American Development Bank (1994-2000), where he created the Research Department. He served as Minister of Planning of Venezuela (1992-1993) and as a member of the Board of the Central Bank of Venezuela. His research interests include issues of growth, macroeconomic stability, international finance, and the social dimensions of development.

The lectures presented by Professor Hausmann's during the 2013 *Leaders in Development* programme tackled relevant economic issues, such as: economic complexity and ways of its measuring; industrial policy as predicament; and high bandwidth development policy. Economic complexity is expressed in the composition of a country's productive output and reflects the structures that emerge to hold and combine knowledge. It is not just a symptom or an expression of prosperity: it is a driver. It matters because it helps explain differences in the level of income of countries, and more importantly, because it predicts future economic growth. Economic complexity might not be simple to accomplish, but the countries that do achieve it tend to reap important rewards.

The challenge in the pursuit of industrial policy is that the government cannot rely on markets for information or incentives. Professor Ricardo Hausmann argued for a governance architecture based on a multiplicity of public agencies that act as a network capable of dealing with the underlying complexity of the problem. He said that industrial policy is hard, but that is no argument against its use. Fiscal policy or education policy is hard too, but few people would argue that governments should just give up on them.

Last but not least, the prestigious lecturer stressed the fact that little is gained from disregarding the high-dimensional nature of the development process and its requisite public inputs. The alternatives for policymakers are clear: either embrace and deal with high dimensionality or hide from it. Embracing it implies working not only on individual policy actions that may be required but more importantly on the meta-structures whereby problems are identified and addressed.

Leading in the Midst of Crisis

Dr Jamil Mahuad served as President of Ecuador (August 1998 to January 2000), capping a career of nearly 20 years in Ecuadorian politics, which included two terms as Mayor of Quito (1992-1998) and as member of the National Congress. Mr. Mahuad is a Nobel Peace Prize Nominee (1999) for the signing of a definitive Peace Treaty with neighbour country Peru that in the words of President Clinton *"ended the longest source of international armed conflict in this Hemisphere"*. Mr. Mahuad has been a visiting faculty member at prestigious universities all over the world and is a contributing author to *Beyond Reason* (2005) by Roger Fisher and Daniel Shapiro.

Dr Mahuad explained how business leaders have much more in common with artists than they do with managers and what is the ideal way to develop leadership. Concerning the last mentioned question, every society provides its own answer and each, in groping for answers, defines its deepest concerns about the purposes, distributions, and uses of power.

A significant part of Dr Mahuad's lectures were dedicated to ways of negotiating wicked problems. Sometimes the problem to be negotiated is itself both obscure and deeply unstable; everything you do to try to improve the situation turns out to create a new problem, and sometimes, a worse one. In these settings, Dr Mahuad concluded that traditional negotiation training has often not been enough and that we need something new. He offered a series of personal and dramatic stories from very different settings, which together illustrate how a new set of concepts and approaches is developing.

Strategic Management

Matt Andrews (Faculty Co-Chair) is Associate Professor of Public Policy. His research focuses on public sector reform, particularly budgeting and financial management reform, and participatory governance in developing and transitional governments. He brings this experience to courses on public management and development.

Mr. Andrews played a crucial role in the 2013 *Leaders in Development* programme. He presented a series of lectures on strategic management: leading development and change; the challenge of leading development in changing times (together with Ronald MacLean-Abaroa, the first democratically elected mayor of La Paz, Bolivia); what is state capability; pursuing change through problems; setting up a change strategy; engaging with agents; communication and engagement in the change process. He also conducted a series of role-playing exercises, acting as a faculty advisor throughout the program.

His recent book entitled *"The Limits of Institutional Reform in Development"* served as a precious guide for all the course participants and offered relevant insights and food for thoughts for the future. He encouraged all participants to maintain the connections with their colleagues, the faculty, the HKS programme team and the broader HKS community.

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Times of great change demand enlightened leadership. This is particularly true today, when leaders face an increasingly complex tapestry of economic, political, social, and military challenges in response to rapidly accelerating changes.

Firstly, globalisation continues to be a central force driving change in expected and unexpected ways. Secondly, decentralisation of decision-making authority is increasingly common. Thirdly, pressures for democratisation and participation are increasing. Last but not least, knowledge is expanding exponentially.

What do leaders have to do in response to all these challenges? The lessons learned emerging from a *Leaders in Development* programme embrace the following tasks and specific recommendations:

➢ Leaders must understand how global governance will affect their countries and organisations, develop the skills to thrive in international arenas and manage the impact of global change, both positive and negative, on their countries.

➢ Leaders must understand how to build coalitions and negotiate across government, markets, civil society and institutions.

➢ Leaders must develop capacities to lead through consultative and participatory processes in order to work effectively with political parties, NGOs, interest groups, and other organisations in civil society.

➢ Leaders must spend more time acquiring critical knowledge and guide their organisations in adapting new technologies and knowledge to improve performance and responsiveness to the needs of citizens.

In short, leaders are encountering arenas in which authority is more diffuse, issues are more complex, and knowledge and collaborative processes are more important than ever. These dynamics require new skills and a transformational style of leadership.

The participants in the *Leaders in Development* programme acquire knowledge, hone skills, and develop networks through intense interaction with faculty and other participants who, like themselves, hold the most senior leadership and policymaking positions in their countries.

The needs of each country/organisation are unique and require creative solutions and leaders need to be equipped to meet the challenge. All participants return to their countries with greater knowledge of changes taking place internationally and a renewed commitment to working with others to develop their societies.

Personal Insights

I would recommend without reservation Harvard Kennedy School of Government's *Leaders in Development* course. It was an extraordinary experience both professionally and intellectually. The combination of prestigious professors, peer participation and in-depth analysis gives a perspective on the invaluable role of leadership that helps participants to make better decisions for the future. The programme was hugely entertaining and tremendously thought-provoking. The faculty is excellent and the case studies are practical, insightful and always right on point.

It was also a great learning experience to have the opportunity to discuss common challenges with a truly diverse and multi-talented group of fellow professionals from around the world. The ground covered in the course was ideal from that perspective, helping me understand most of the mistakes I had made in past management roles. As well as making a number of friends and contacts from many countries throughout the world, I learnt that, whilst there are no magic answers, all of us suffer from the same general concerns, stresses and strains. The quality of the course leaders, the material and the case studies, as well as those attending made it two extraordinary weeks in one of the world's greatest schools that I will not forget.

In my view, *Leaders in Development* course challenges people's traditional way of thinking about making strategy and leading and managing professionals. As someone who spends most of their time in the research and education arena, this programme was the most engaging learning experience I have participated in.

The concepts taught and shared learning generated first class discussion, inspiring me and my fellow participants to really think anew about the role of leadership in a challenging world and how to bring this type of learning experience to a wider audience.

Few things are more important to human activity than leadership. Effective leadership helps our nation through times of peril. Much of the literature about management and leadership stresses decision-making and implies that if decision-making is timely, complete and correct, then things will go well. Yet, a decision by itself changes nothing. After a decision is made, an organisation faces the problem of implementation – how to get things done in a timely and effective way. In this regard, *Leaders in Development* is an extremely useful programme whereby participants are challenged to develop personal skills and qualities to better understand interpersonal dynamics, build alliances and maximise team performance. Most importantly, the graduates are all enabled to boost performance, improve outcomes and craft effective solutions to complex problems.

ARMED CONFLICT IN THE CURRENT WORLD
– Theoretical Approaches –

Dr Ioan Codruţ LUCINESCU

The 20th century conflicts between states are being replaced by hybrid wars and asymmetric conflicts in which there is no clear-cut distinction between soldiers and civilians and between organised violence, terror, crime and war.

Today, conflicts are increasingly characterised by a hybrid blend of traditional and irregular tactics, decentralised planning and execution and non-state actors, using both simple and sophisticated technologies in innovative ways. Threats incorporate a full range of different modes of warfare including conventional capabilities, irregular tactics and formations, terrorist acts including indiscriminate violence and coercion and criminal disorder.

***Keywords**: international relations; armed conflict; warfare; nation-states; non-state actors; asymmetrical conflict*

Conflict in the theory of international relations

Conflicts are inevitable presences in all the field of the human activity that is subject to change. Traditionally, the term *conflict* has a negative connotation, being interpreted as opposite to cooperation, harmony, agreement or even peace. Here are two general definitions of the term conflict, from the explanatory dictionaries: *"Conflict – divergence, clash of interests, disagreement, antagonism; argument, dispute, (violent) discussion"*[1]; *"Conflict – to collide or disagree; to be contradictory, in dispute or in opposition, clash. To clash, to lead a fight; controversy, quarrel. Incompatibility or interference between ideas, actions, desires, events etc."*[2].

Conflicts may occur between parties that seek to reach the same objective or between parties whose interests are very different; the state of conflict can exist even without mutually exclusive interests. *Conflict Resolution – CR,* an extremely dynamic domain of social sciences, suggests alternative versions for the definition; alongside

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[1] *Dicţionarul Explicativ al Limbii Române (Explanatory Dictionary of the Romanian Language)*, Editura Academiei RSR, Bucureşti, 1984, p. 184.

[2] *Webster's Encyclopaedic Unabridged Dictionary of the English Language*, Random House Value Publishing, 1994, p. 308.

opposition and clash of interests, when defining conflict, one must bring in discussion the element of *conflict conscientisation*.

In the field of international relations, a favourite field for those who study this phenomenon, in defining the term *conflict*, the incompatibility of interests is underlined:

- Conflict is a social condition that occurs when two or more actors seek to attain mutually exclusive or mutually incompatible objectives. In international relations, the conflict behaviour can be understood as war or as threat of war[3].
- Conflict means different groups/organisations seeking incompatible objectives[4].

In the academic world, in the theory of international relations and the study of international studies, there are used definitions[5] that invariably include the existence of two or more parties that seek a certain power element – authority, resources or prestige/status, have resources available and are willing to assign them or even decide to spend them in order to acquire the desired element.

The definition simultaneously grasps the three fundamental power elements: *authority* – political power, resources, *economic power* and *symbolic power* – prestige, acknowledged status. Obviously, there are variations that stress either the interests (political, economic etc.), status or a specific authority (instead of power): political, economic or symbolic, but the essence and substance of these three dimensions are theoretically constant[6].

According to *Galtung's diagram*[7], every conflict contains an inner contradiction, derived either from the fact that the two actors seek to reach the same, unique goal, or from the fact that the same actor seeks to reach two different goals. The first stage in a conflict is labelled *"dispute"*; the second stage is the *"dilemma"* and the third one is defined as *"conflict"* or *"peaceful solution"*. The *"natural"* release of energy for conflict resolution (including war, if that certain conflict is at state or interstate

[3] Graham Evans, Jeffrey Newnham, *The Penguin Dictionary of International Relations*, Penguin Books, London, 1998, p. 93.

[4] Hugh Miall, Oliver Ramsbotham, Tom Woodhouse, *Contemporary Conflict Resolution*, Polity Press, Cambridge, 2000, p. 19.

[5] Iulian Chifu, *Analiza de conflict*, Editura Politeia-SNSPA, București, 2004; see Denis J.D. Sandole, Sean Byrne, Ingrid Sandole-Staroste, Jessica Senehi, *Handbook of Conflict Analysis and Resolution*, Routledge, SUA & Canada, 2009.

[6] Iulian Chifu, Oana Popescu, Bogdan Nedea, *Religion and Conflict. Radicalization and Violence in the Wider Black Sea Region*, Editura ISPRI, București, 2012, p. 5.

[7] For more details, see Johan Galtung, *Conflict as a Way of Life*, in William H. Freeman (editor), *Progress in Mental Health*, London, Churchill, 1969.

level) may bring about destruction (the destruction of the *"other"* or self-destruction) or a constructive behaviour leading to peaceful solution[8].

The notion of *conflict* may be considered as being rooted in the social structures that have shaped the social life and realities in a mistaken manner and which shows a certain latency, a delay of the changes because of inertia, self-sufficiency, a certain resistance to any social, institutional change etc.[9]. Thus, beyond hostility and antagonism, there often are differences in terms of power, economic disparities and discrimination based on the collective identity that generates sufferance[10], reflected in the construction of the cognitive-institutional framework.

Louis Kriesberg employs a sociological analysis in defining conflict. Unlike Galtung, according to Kriesberg, conflicts are defined as such from the very beginning and are not necessarily the consequence of an objective state or of a structure of the system. Thus, *"a social conflict exists when two or more persons or groups manifest the belief that they have incompatible objectives"*[11]. The perception of a situation of conflict is enough for the conflict to exist. As far as Galtung is concerned, the objective conditions come first, while Kriesberg believes that subjective perceptions are relevant to the definition of the conditions of the conflict.

Based on studying the deep causality of the conflict, Herbert Kelman formulated, in 1997, the *axioms relating to international conflict*[12]:

- International conflict is a process driven by collective needs and fears, rather than entirely a product of rational calculation of objective national interests on the part of political decision-makers.
- International conflict is an intersocietal process, not only an interstate or intergovernmental phenomenon.
- International conflict is a multifaceted process of mutual influence, not only a contest in the exercise of coercive power.
- International conflict is an interactive process with an escalatory, self-perpetuating dynamic, not merely a sequence of action and reaction by stable actors.

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[8] Oliver Romsbotham, Tom Woodhouse, Hugh Miall, *Contemporary Conflict Resolution*, Polity Press, Cambridge, 2011.

[9] Simon Tormey, Jules Townshend, *Key Thinkers from Critical Theory to Post-Marxism*, Sage, Londra, 2006.

[10] Ho Won Jeong, *Understanding Conflict and Conflict Analysis*, Sage, Los Angeles-London-New York-New Delhi, Singapore, 2008, p. 54.

[11] Louis Kriesberg, *Constructive Conflicts. From Escalation to Resolution*, Lanham and Bouldner, New York, 1998, pp. 2-3.

[12] Ionel Nicu Sava, *Studii de securitate*, Centrul Român de Studii Regionale, București, 2005, p. 110.

These *"objective necessities"* taken into account by conflict theory refer to identity, security, autonomy, recognition, prestige, justice and other symbolic or material necessities. In other words, the sources of the conflict place themselves at the level of physical or symbolic aggressions towards identity, security, prestige, economy, territory, integrity etc.

Currently, the specialised literature comprises concepts that form a family of the terms related to conflict, being translated in the field of international relations[13]: armed conflict, violent or lethal conflict, contemporary conflict, intractable conflict and protracted conflict:

- *armed conflict* – both sides use force;
- *violent conflict* or *lethal conflict* – similar to armed conflict, yet, in addition, it includes unilateral violence – genocide against civilians;
- *contemporary conflict* – generically, it reunites *political* and *violent conflicts* after the *Cold War;*
- *intractrable conflict*[14] – such conflict simply resists any attempt at management, because it is not focused on interests, that can be met more easily, but on intangible issues such as values or identity, aspects that are more difficult to meet in certain situations; two track diplomacy is the most efficient form for managing this kind of conflict;
- *protracted conflict* is a long-lasting conflict, alternating the stages of maximum intensity (war) with the ones of relative calm.

In close connection with the phenomenon of conflict, there is the concept of *conflict management*. *Conflict management* consists in a both research and practice direction and seeks to identify crises situations and ongoing or potential conflicts, in order to eliminate or reduce their negative effects.

For this purpose, tools for analysis and action are created to help prevent, regulate or transform the times of crisis or conflict in acceptable or less destructive situations to the parties involved or affected by them. This approach has a long tradition in economic and social-human sciences, being developed and used in several disciplines, such as economic management and political science. In international relations, conflict management is an interdisciplinary field, mainly focused on the ways of preventing armed conflicts on the international stage[15].

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[13] Ana Stoica-Constantin, *Fundamente teoretice ale conflictului*, *"Al.I. Cuza"* University, Iaşi, 2009, p. 6, at http://www.psih.uaic.ro

[14] Jacob Bercovitch, *Characteristics of Intractable Conflicts*, October 2003, at http://www.beyondintractability.org/bi-essay/Characteristics-IC

[15] Diego Checa Hidalgo, Luciana Alexandra Ghica, *Gestionarea crizelor şi a conflictelor internaţionale*, in Andrei Miroiu, Radu-Sebastian Ungureanu, *Manual de relaţii internaţionale*, Editura Polirom, Bucureşti, 2006, p. 212.

Current approaches of the concept of armed conflict

The notion of *armed conflict* is complex, going beyond the one of *war*, with which it is often equated. *Armed conflict* means both wars, in their plurality, and other forms of violent contestation, through lethal weapons, opposing social groups between them or a social group and a state. On the other hand, the *armed conflict* is an organised, collective and violent confrontation between two or more actors, whether they are state or non-state actors. From this definition of armed conflict one may conclude that an armed confrontation is an armed conflict between two state actors, two non-state actors or between a state actor and a non-state actor. This latter case can be exemplified by the armed confrontation between the armed forces of Colombia or Mexico with the guerrillas and the paramilitary groups of the drug cartels in these countries.

In essence, *war is the most violent form of an armed conflict, opposing at least two officially organised military groups, usually states*. Thus, it translates into more or less devastating armed fights and involves directly or indirectly third parties. War means any conflict whose main characteristics are physical violence, weapons, tactics, strategy, directly resulting in the death of some of the participants or third parties, especially civilians.

In the complex world of the 21st century, we encounter a diversity of manifestations of armed conflicts, the classical ones being joined by new ones or by variations of those already known throughout history. Thus, in political science, international relations and security studies, there are generally used the following types of armed conflicts, according to its character and values[16]?:

➢ *Internal conflict* – the most common type of conflict in today's world, which takes place between the armed forces of the legally established government and an opponent civil group organised within state borders. These conflicts are motivated by ethnic, religious or ideological incompatibilities existing within the respective society. They consist of *"classical"* internal conflicts, without foreign intervention, on the one hand, and *internal conflicts with foreign involvement*, on the other hand. In the latter case, at least one of the parties involved in the armed confrontation is supported by the military forces of another state or coalition, the example of Afghanistan being eloquent in this respect; one may also mention the conflict in Syria, which is under way in 2013 and whose developments are difficult to predict in terms of external intervention.

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[16] Petre Duţu, *Managementul şi conducerea militară strategică în viitoarele confruntări armate*, Editura UNAp, Bucureşti, 2012, pp. 11-12.

➢ *Interstate conflict* usually occurs between two governments that each use their own armed forces. The conflict may occur anywhere and is often initiated by a formal statement; usually, in such a situation, war is mentioned.

➢ *Non-state conflict* consists in the use of armed forces between two organised groups, none of which being representative of the government of the country.

➢ *Internationalised internal conflict* occurs between a member of the international system and a political entity (which is not a member of the system) outside its territorial borders. Internationalised internal conflict takes place between the state and an independent non-state actor[17].

From the perspective of international law, the classification of a conflict (international/interstate or national/internal) is important, as it indicates the laws that are to be applied regarding this confrontation and the attitude of the international public opinion against it (direct/indirect involvement, economic, political embargo against one or all the belligerent parts etc.). Yet, this is often difficult because of the rapid evolution of the conflict from one category to another.

According to international law, *war* is divided into two categories: *international armed conflict* and *non-international armed conflict*.

International armed conflict is characterised by a war between two or more states, in case there is a very well defined border between these states.

According to the definition from Article 2 that can be found in all four Geneva Conventions (1949), international conflict is defined as being: *"declared war or any other armed conflict which may arise between two or more of the High Contracting Parties, even if the state of war is not recognised by one of them"*, as well as in the case of *"partial or total occupation of the territory of a High Contracting Party, even if the said occupation meets with no armed resistance"*[18].

Non-international armed conflict is the most common type of armed conflict in the world today. Hostilities take place within a state, between government forces and non-state armed groups or members of these groups; these conflicts are usually characterised by extreme brutality of the combatant sides against civilians considered as being on the opponent's side[19].

In terms of the motivation of the outbreak of an armed conflict, we distinguish between the following types of conflicts: *political* (incompatibility in terms of political systems, the desire for secession, autonomy, change of power relations); *socio-cultural* (ethnic, religious or ideological problems); *economic* (distribution of surface

[17] *Ibid*.

[18] International Committee of the Red Cross, *The Geneva Conventions and their Additional Protocols*, at http://www.icrc.org/eng/war-and-law/treaties-customary-law/geneva-conventions/index.jsp

[19] *Ibid*.

and/or underground resources, considered incorrect by one of the parties); *territorial* (incompatibility in terms of borders, regional predominance or autonomy).

In the specialised literature, there also can be found the term *"wild war"*[20], referring to armed conflicts that have as purpose or consequence the almost total elimination of one of the belligerents. Associated with mass massacres, these wars are less aimed at dominating the other, occupying or controlling the territory, but simply at exterminating part of the respective population; the wars in Rwanda, Chechnya and Bosnia in the '90s are perfect examples of this extreme form of conflict.

In principle, armed conflicts can occur in a *symmetrical* or *asymmetrical manner*, although most of them are rather a combination of these forms; yet, the name is given by the dominant feature of the respective conflict.

In a *symmetrical conflict*, the parties involved have armed forces that resemble at the doctrinaire and structural level and in terms of the means that pursue similar tactical, operational and strategic objectives[21]. In this case, the strategy of the parties involved is based on the same political and military logic (e.g. the two world wars). Related to this type of conflict, we also mention the *dissymmetrical* aspect, when one of the parties involved has available armed forces and a crushingly superior leadership (at doctrinaire, structural and means-related level). The party that has this superiority is capable of exploiting it for meeting political and military objectives (the example of the multinational US-led coalition during the Gulf War, between 1990 and 1991).

In *asymmetrical conflicts*[22], one of the parties involved is unwilling or unable to carry the fight in a symmetrical manner because of its inferiority (at doctrinaire, structural and means-related level) and therefore seeks to fully exploit the available tools aiming at the structural vulnerabilities of the enemy (e.g. internal and international public awareness, social, political, ethnic etc. peculiarities of the society of the strongest party etc.). In doing so, we notice a change in terms of the operational and tactical means employed, with the maintaining, in general, of the strategic goal *(table 1)*.

The asymmetrical conduct of a conflict is often characterised by high violence (not only against military objectives, but especially against civil ones, for the establishment of a psychosis of terror and elimination of the feeling of security of the respective society). The party involved that carries the fight in asymmetrical manner seeks to defeat the will of the adversary and thus to achieve its political objectives, through long-lasting confrontations, meant to wear out their will and strength.

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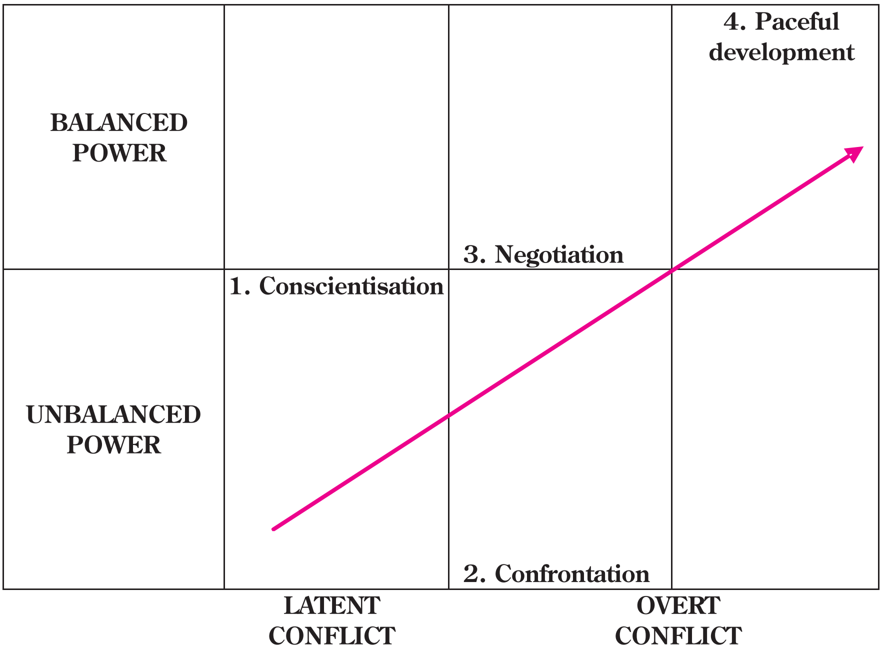
[20] Wolfgang Sofsky, *Traité de la violence*, Gallimard, Paris, 1998.
[21] Oliver Ramsbotham, Tom Woodhouse, Hugh Miall, *op. cit.*, pp. 7-25.
[22] *Ibid*, pp. 10-13.

Table 1: Transforming Asymmetrical Conflicts



Source: Oliver Ramsbotham, Tom Woodhouse, Hugh Miall, *Contemporary Conflict Resolution*, Polity Press, 2011, p. 13.

(State and non-state) actors involved in armed conflicts

As for the actors involved in the armed conflicts of the 21st century, we are witnessing their increase. Based on the analysis of conflicts of past decades, we can say that subjects are both state actors and non-state actors. This latter category includes: *private military/security companies*, *paramilitary* formations of certain organised crime groups (paramilitary structures of the drug cartels in Colombia, Mexico or Brazil); *international terrorist groups; national liberation formations; paramilitary formations of separatist organisations* (e.g. *ETA* in Spain, *IRA* in Northern Ireland, the *Tamil Tigers* in Sri Lanka)[23].

Future armed confrontations can take place both between state actors, as it was in the first Gulf War, between Iraq and Kuwait, in 1990, or, more recently, the Russian-Georgian War (2008), and between a state and an international military coalition, such as the Iraq War, started in 2003. At the same time, there can be

[23] Lucian-Dumitru Dârdală, *Actori în sistemul internaţional*, in Andrei Miroiu, Radu-Sebastian Ungureanu, *Manual de relaţii internaţionale*, *op. cit.*, pp. 44-57.

a military confrontation between an international military coalition, established under a UN mandate, and insurgents, as things currently happen in Afghanistan.

Moreover, an armed confrontation can occur between a state actor and a paramilitary group belonging to a drug cartel. Thus, in Colombia, there are often clashes between the armed forces, police forces and the *"combatants"* enrolled in drug cartels.

Certain significant consequences on international relations may also result from the action of combatant militias, mainly a recent product of the *Third World* societies, which has proliferated and experiences an alarming rise. The phenomenon has manifested in Europe also, in the conflict in Bosnia (the militias formed on ethnic bases), Albania (under the form of criminal gangs that have expanded their business across Europe and not only, being suspect of weapons trafficking including in the civil war in Syria) and in certain areas of the former Soviet Union in the early '90s. Militias created in order to combat the authorities of emerging states in the ex-Soviet area can also be found in the conflicts in Georgia, Nagorno-Karabakh, Chechnya and, closer to our country, in the conflict in the Republic of Moldova (1991-1992), where Transnistrian militias were the backbone of separatist forces.

Militias, the product of weak state structures, unable to maintain and assert their authority at the state level, appear in the context of *"failed states"*[24]. The well-known and dramatic cases, by the humanitarian disaster caused, are Somalia and Rwanda, where the leaders of these violent movements, known as *"warlords"*, successfully (in the case of Somalia) opposed even professional military forces, namely US troops. The widely publicised failure of US forces in 1993 had unexpected effects regarding aspects of US foreign policy, in the sense of greater reluctance in Washington to the engagement in other humanitarian and peace enforcement operations on the African continent.

In addition, there is the possibility of an armed confrontation to take place between non-state actors as well. For instance, paramilitary formations of organised crime fight with each other to preserve their *"markets"* or places of drugs production or acquisition of new ones, using even heavy weapons, such is the case of Mexico, where these confrontations produce thousands of casualties annually. Weapon, human trafficking, money laundering etc. are areas from which cross-border organised crime makes hundreds of billions of dollars annually; in those cases too, when its vital interests are affected either by the state institutions that have expertise in organised

[24] Paul B. Rich, *Warlords in International Relations*, Palgrave Publishers, London, 1999, p. 14.

crime prevention/fighting or other similar organisations, the settlement of the dispute can be done by using military means (the case the ex-Soviet mafias).

In *table 2*, we point out the main features of the actors involved in present and future armed conflicts.

Table 2

FEATURES	**BELLIGERENTS**	
	NATO, the civilised world	Insurgent movements, terrorist organisations, cross-border crime structures
Technological polarisation	Precise actions, based on information and technological dominance	Violent, surgical, revengeful actions
Intensity of reactions	Synchronising the action (reaction) intensity degree with the existing situation (proportionality)	Extreme actions, seeking to destroy objectives and cause extreme damage to the enemy
Purposes and objectives	Armed conflicts prevention, crisis management, peace enforcement and keeping	Imposing the will by force, by violence and blackmail or by fait accompli
Legality	Adapting the actions to the laws, customs and principles of war: improving these laws	There are no limitations. They assume the right to act and react in order to harm or destroy the enemy
Morality	They do not act against civilians, they protect the human beings and respect the rights of war prisoners	Hostages are taken, the civil population is attacked, fait accompli and blackmail are used
Preserving the values	It is a priority objective	Destroying values by all means possible
Imposing the will	It is made by creating situations in which a dialogue could be reached as soon as possible	Imposing the will is made by causing casualties and by blackmail

Source: Constantin Moştoflei, Gheorghe Văduva, *Tendinţe în lupta armată*, Editura UNAp, Bucureşti, 2004, pp. 31-32.

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In general, modern societies regulate their conflicts of interest without resorting to violence, substantiating their its actions, in principle, on the (internal and international) law regulations. However, we can say that these conflicts of interest are more and more subject to a logic of escalation. In the latter case, one must keep in mind that some will resort to violence or at least the threat of violence to protect their interests or to impose their will.

Researchers in the field of international relations and security studies have noted that there is not a clear line of separation between government and citizens, between armed forces and civilians, between the public sector and civil, private society anymore. The fading away of levels of perception creates strong pressures on how to conduct an armed conflict. In this respect, the military objective cannot be exclusively the systematic and effective attack of enemy lines anymore, but, in most cases, the erosion of the popular support for the war in enemy territory (in the asymmetrical war there are included, for instance, the separatist actions of the insurgents in Chechnya against the Russian armed forces, the ones of the Palestinians against the Israeli military, as well as the terrorism).

The unpredictable consequences of such a logic of escalation require both adequate national security institutions and their preparation for a possible conflict.

English version by
Iulia NĂSTASIE

ORGANISED CRIME AND CORRUPTION
– Threats to National Security –

Dr Daniel PINTILIE

In recent years, in the countries in Central and Eastern Europe, crime has reached impressive rates, especially in countries such as Yugoslavia, Albania and Bulgaria. The author underlines the fact that we can talk about the degradation of civil order, inflation, and black market in our country too. The opening of borders in the region has facilitated the migration of people and goods, thus boosting the free market and, unfortunately, the organised crime. Organised crime groups, juggling the financial power they have, have managed to get very quickly especially to these democracies in infancy. Each of the countries in Central, Southern and Eastern Europe has its own history of this period, marked by significant instability and by real and, unfortunately, effective offensive of organised crime.

Keywords*: terrorism; organised crime; corruption; communist bloc; education*

As two fundamental social problems, whose mode of expression and resolution concern both the factors of social control (police, justice, administration) and the public opinion, organised crime and corruption are topical, although they are more or less known to each of us. But whether we like it or not, organised crime and corruption are among the national security threats.

In this context, focusing efforts to combat these two phenomena can be achieved only by mobilising all the institutions of a state. Therefore, in my opinion, it is necessary to intensify the efforts to remove or at least decrease these two important components of crime, by permanently correlating the policies to combat organised crime at national level with the international norms in the field, by integrating these policies in a broader national strategy. In a study conducted in 2011 by the Anticorruption Studies and Projections Service within the Anticorruption General Directorate, *"76% of the respondents to the opinion survey believe that, in recent years, the interconnection between corruption and organised crime has increased (41%) or has been constantly high (35%)"*[1].

Dr Daniel Pintilie – Ministry of Internal Affairs.

[1] Ministry of Internal Affairs, Anticorruption General Directorate, Prevention Directorate, Anticorruption Studies and Projections Service, *Study regarding the Interconection between Organised Crime and Corruption*, December, 2011, p. 22, see http://www.mai-dga.ro/index.php?i=1441&l=ro&t=69

Organised Crime

In recent years, in the countries in Central and Eastern Europe, crime has reached impressive rates, especially in countries such as Yugoslavia, Albania and Bulgaria. In our country, we can also talk about the degradation of civil order, inflation, and black market. The opening of borders in the region has facilitated the migration of people and goods, thus boosting the free market and, unfortunately, the organised crime. Organised crime groups, juggling the financial power they have, have managed to get very quickly especially to these democracies in infancy. Each of the countries in Central, Southern and Eastern Europe has its own history of this period, marked by significant instability and by real and, unfortunately, effective offensive of organised crime. There are many elements common to all these countries, but each has its peculiarities, which outline the trajectory in areas very close to the epicentre of traditional organised crime.

The fight against organised crime equals, mainly, the one against money laundering, as money laundering represents the intersection of two true scourges in the modern world: terrorism and crime. Money laundering, as key activity of organised crime groups, is the most revealing sign of their power, as well as a mandatory step that enables the transition of the funds resulted from criminal activities into the legal economy.

Under the mentioned conditions, we appreciate that strong measures should be taken and the organs and bodies with responsibilities in the field in our country should closely collaborate in order to fight against all natural/legal persons or financial institutions that commit such crimes to obtain illicit financial resources. Otherwise, there is the risk, not negligible at all, that laundered money can become the *"crucible"* of the economy and impose its own rules, which means, in fact, undermining or even dissolving the state authorities and enabling the arbitrary rule of mafia.

Unfortunately, the existence of legal norms does not completely prevent the phenomenon of money laundering in Romania, a phenomenon that occurs even in a rudimentary, less sophisticated manner but falls within the techniques used in developed countries.

At national level, in institutional terms, to coordinate the fight against this phenomenon, the *National Office for Prevention and Control of Money Laundering (NOPCML)* was established in 1999. Its mission is to prevent and combat money laundering and terrorism financing. For this purpose, it receives, analyses and processes information, and notifies, under the law, the Prosecutor's Office attached to the High Court of Cassation and Justice.

Law no. 656/2002, republished in 2012, on preventing and punishing money laundering as well as on setting up some measures to prevent and combat terrorism financing, with subsequent modifications, establishes the procedures to identify clients and process the information on money laundering. By the decision of the President of the NOPCML no. 496/2006, *the norms on preventing and combating money laundering and terrorism financing, the standards of customer due diligence and internal control for the reporting entities that are not subject to prudential supervision by authorities* were approved. According to these regulations, the persons who, through their work, report suspicious transactions have to take appropriate measures in their activity, based on risk and on customer due diligence, enabling them to also identify the real beneficiary.

In addition to specific activities, NOPCML members should ensure the most effective means of cooperation with the institutions they come from. Considering the legal provisions, the Office has taken charge of coordinating the efforts to combat money laundering nationwide. NOPCML also acts as a filter to protect confidential financial information, given the way complaints are forwarded to the Prosecutor's Office attached to the High Court of Cassation and Justice, where there are indications of money laundering.

To reduce the analysis time and to ensure the access to a wide range of information, the Office has succeeded in providing the online access to the databases of other public institutions, among which we mention the following:

- the National Trade Register Office, for the entire database of the registered legal persons;
- the Ministry of Public Finance, for the databases relating to balance sheets, VAT return, and payments to the state budget;
- the National Customs Authority, for the database of international trade operations (imports and exports).

In our country, an essential element related to the identification of complex networks of suspicious transactions and of the financial engineering of those dealing with money laundering is the process of collecting, storing and retaining information within a *financial intelligence unit "which acts as a central national unit responsible for receiving (and, as possible, requesting), analysing and disseminating to the competent authorities the disclosed information concerning potential money laundering, potential terrorism financing or that required by national laws or regulations"*[2]. In this regard, a secure electronic data transfer system has been established, which is mainly focused on the full automation of the collection of the reports economic agents

[2] According to the provisions of Art. 21 in *Directive 2005/60/CE – 3rd Directive*, see http://www.onpcsb.ro/html/prezentare.php?section=9.

have to submit to the Office, in accordance with *Law no. 656/2002, republished in 2012*, amended and supplemented, as well as of the reports on cash transactions, in lei or foreign currency, whose minimum is the RON equivalent of EUR 15 000, the reports on foreign transfers in and from accounts for amounts whose minimum is the RON equivalent of EUR 15 000, and the reports on suspicious transactions in order to reduce the time to collect the information in these types of documents.

Law no. 656/2002, republished in 2012, for preventing and punishing money laundering creates the appropriate legal framework for a fruitful collaboration of the National Office for Prevention and Control of Money Laundering with the entire system of institutions and entities involved in preventing and combating money laundering, i.e.:

- institutions responsible for developing and implementing anti-money laundering legislation in our country: the Ministry of Justice, the Ministry of Public Finance, the Ministry of European Affairs, the Ministry of Internal Affairs, the Prosecutor's Office attached to the High Court of Cassation and Justice, the National Bank of Romania, the Romanian Intelligence Service, the Foreign Intelligence Service;
- authorities in charge of financial control and prudential supervision: the Financial Guard, the National Customs Authority, the Financial Administration, the Romanian Court of Accounts, the NBR Supervision Directorate, the Gambling Licensing and Authorising Committee within the Ministry of Finance, the National Securities Commission, the Insurance Supervisory Commission;
- reporting entities: banks and branches of foreign banks, financial and credit institutions, economic agents involved in gambling, natural and legal persons that provide legal, accounting, notary, financial, banking advice, post offices, exchange offices;
- professional associations: the Romanian Banking Association, the National Securities Commission, the National Association of the Romanian Bars, the National Union of Notaries Public in Romania and the Body of Expert and Licensed Accountants in Romania.

Corruption

The problem of corruption in post-communist Romania has been one of the factors that have hampered the process of economic and political development, an element blocking from the inside Romania's road and aspirations to a normal evolution after 1989. This is a view widely accepted and acknowledged as such, even if there are different aspects in many countries belonging to the former communist bloc.

As mentioned at the beginning of the paper, corruption and organised crime should not be seen as being distinct but complementary: corruption as a tool of organised crime and organised crime as a later stage of corruption development.

In a society where there is welfare, strict rules, where people have a certain quality of life, corruption is much diminished. In a society where everyone wants to win over the other, various means are employed, corruption included.

The United Nations and the European Union are two international bodies that have developed policies and strategies to fight corruption, a phenomenon with strong implications for the security of the states in the world, through measures aimed to prevent, combat and punish it. The States Parties to the UN Convention against Corruption have to fight against undermining democratic institutions and values, to defend ethical values, justice, sustainable development and the rule of law. These states are convinced that corruption is a transnational phenomenon that threatens all countries and their economies, which stringently requires international cooperation to prevent and combat it through a global approach. Therefore, we consider that the Romanian anti-corruption strategies should be addressed in the same manner, based on the analysis of the connection between corruption and other forms of crime, in particular organised crime and economic-financial crime.

Corruption and organised crime can be prevented and combated by educational and coercive means, by designing government programmes meant to curb corruption and organised crime, based on viable strategies, on laws such as the law against electoral corruption. Crimes such as money laundering, drug trafficking, tax evasion, racketeering and smuggling system, as well as international terrorism define corruption and organised crime, and threaten national safety and security to a large extent, which requires concerted counter actions consonantly involving all the institutions in charge of combating corruption.

The assumed risk management as far as combating corruption is concerned is a dynamic and complex process, through which specific methods, tools and process governing capabilities are implemented to fight corruption by controlling performance dynamics. Moreover, the transition from the assumed risk management related to combating corruption to the government through risk provides the decision-makers that lead and coordinate the actions meant to combat corruption with a greater capability to anticipate the direction of the transformation process not only at structural level but also at performance level, stimulating their proactive actions, as well as with a greater chance to achieve maximum performance.

The strategies to combat high-level corruption will not be effective if they are built on a narrow, fragmented and disparate view of the phenomenon. Moreover, these strategies should be fully supported by the entire political class by reaching the consensus of parliamentary parties. Therefore, any measure to limit corruption should not be symbolic or accidental but permanent, by developing comprehensive strategies and programmes to combat it. These strategies should be based on the following assumptions: absolute victory against corruption is impossible; there are no states *a priori* destined to total and chronic corruption, and Romania is no exception to the rule; corruption cannot be limited in a single-day campaign; combating corruption cannot be limited to legislative measures and to the fight against its manifestations, being much more effective to fight against the conditions that cause it; the fight against corruption can be successful if it is conducted comprehensively and constantly in all spheres of public life; the anti-corruption programme should be implemented by the political power of the country in collaboration with the civil society institutions. Last but not least, corruption is so detrimental to the state and society, causing significant losses, that judicious spending to implement the anti-corruption programme can compensate for investment.

English version by
Diana Cristiana LUPU

IRAN'S FOREIGN POLICY AND GRAND STRATEGY AFTER HASSAN ROHANI WON PRESIDENTIAL ELECTION

Dr Florin DIACONU

The study explores several topics related to Iran. Firstly, some main features and elements of Iran's foreign policy and grand strategy are examined, emphasising the perennial character of this state bid for regional hegemony. Secondly, some elements of the foreign policy agenda of Hassan Rohani are explored. Thirdly, some policies the Western world can implement to forge an effective deterrent able to stop, or to moderate or slow down, the aggressive Iranian bid for regional hegemony are mentioned. The general conclusion is that the chances of a real and deep change in Iran's foreign policy and grand strategy are simply nonexistent, as long as real power is concentrated, in Iran, in the hands of Ayatollah Khamenei and other hard-line conservatives.

***Keywords**: foreign policy; grand strategy; balance of power; Iran; the Persian Gulf; regional hegemony*

There is no need, we think, to explain with too many details along the pages of this study what *foreign policy* means. This concept simply designates the way in which Iran *"acts, reacts and interacts"*[1] on the international arena, both at regional level, and at continental and/or global level. We are also using in this study, starting with the title, the concept of *grand* (or *superior*) *strategy*, with the meaning clearly stated, many years ago, by the well-known and very influential B.H. Liddell Hart. The British author wrote that *grand strategy* is the *complete set of efforts made by the state to identify, mobilise and use resources of all sorts, in order to reach the political goals of war*[2] (and, in more general terms, the general goals of the foreign policy, with its so many and complex constitutive elements and connections with other areas of public

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[1] For defining the foreign policy of a state by means of listing these three verbs used here (to act, react and interact) see Graham Evans, Jeffrey Newnham, *Dicţionar de relaţii internaţionale englez-român*, Editura Universal Dalsi, Bucureşti, 2001, p. 190 (first lines of the article dealing with *foreign policy*).

[2] B. H. Liddell Hart, *Strategia: Acţiunile indirecte*, Editura Militară, Bucureşti, 1973, p. 334.

and *political* life). We decided to use the concept of *grand strategy* when we analyse the behaviour of Iranian leaders on the international arena because of several reasons:

a. first of all, Iran clearly is (and was, along *several* recent decades) in open collision with the *Arab* states from the Persian Gulf region, and also with *major* geostrategic interests of the *Western* world (and we also feel the need to strongly emphasise here that, when we speak about the Western world as a political *"unit"* on the world arena, we take into account that Romania *is* a part of the West, both as a member of NATO and as a strategic partner of the US);

b. Iran is, at this very moment – clearly say both media and official sources in different countries, including some which are allies of Romania – deeply involved in *proxy war(s)*. Recent and serious opinions clearly state that Iran and Saudi Arabia are competing for supremacy in the Middle East[3], using *proxy war*, a method which is aiming to reach *major* strategic goals, but is also deliberately avoiding *direct* confrontation;

c. we can also take into account the massive and direct help Iran has offered – and still offers – to Hamas and Hezbollah and to the Assad regime in Syria, as well as the massive efforts aiming to quickly develop and stockpile ballistic and nuclear weapons (these elements are putting *a lot of pressure on Israel, and also are badly harming the entire stability of the Middle East balance of power, in a way which clearly is in open collision with major geostrategic interests of the Western world, too*). Because of *all* these reasons, we tend to think that leaders in Tehran are continuously involved not only in steering the *foreign policy* of their country, but also in designing and implementing Iran's *grand strategy* (Iran being a *major* regional actor with some well-defined *global* ambitions, and which is currently involved, very actively, in *several* conflicts with an obvious military dimension; these conflicts are, sometimes, quickly escalating, and are almost reaching the level we usually call *open* – or *overt* – *war*).

Early August, 2013: Hassan Rohani Officially Becomes President

On 4 August 2013, Hassan Rohani, a *conservative* cleric and politician (*mistakenly* – in our opinion – regarded by some analysts, and also by a large share of international media, to be *"moderate"*) who had won the presidential elections in June, officially became the President of Iran. He made a solemn oath in front of the Parliament in Tehran, one day after being officially confirmed by the supreme

[3] See, for example, Jon B. Alterman, *"The Age of Proxy Wars"*, published in May 2013 by the *Middle East Notes and Comment*, at www.csis.org/files/publication/0513_MENC.pdf

leader of the Iranian *theocratic* regime, Ayatollah Khamenei. International media strongly underlined that the official ceremonies accompanying the transition from the second presidential term of Ahmadinejad to the first term of Rohani took place, *for the first time in the history of contemporary Iran* (a *Shiite* country), in the presence of a significant number of foreign dignitaries, including some very important *Sunni* leaders from the Persian Gulf region[4].

The official ceremonies we are speaking about have been *massively* covered by international media. *Several hundred* foreign journalists (from Azerbaijan, Argentina, France, Germany, Italy, Japan, Lebanon, Nigeria, Norway, Russia, Spain, Slovenia, UK and the United States) were supposed to be present in Iran at the inauguration ceremonies of the presidential mandate of Hassan Rohani[5], on 3-4 August 2013.

But those official ceremonies are, in the end, not *very* important for our discussion. Another episode – a secondary one, but only at the first glance – clearly is more important. The episode we are speaking about took place on 2 August 2013, barely 48 hours before the moment when Rohani officially became President of the Islamic Republic. On 2 August, Iran commemorated the so-called *"World Jerusalem Day" (World Quds Day)*. On this occasion, President Ahmadinejad made again, at the very end of his second term, several very hostile remarks on Israel, and on Western states (major Western actors of the international arena, and mainly the US, were described as being *"arrogant"* and were regarded as being *"guilty"* because they are supporting Israel). Ahmadinejad made the audience at the Tehran University to remember that the initiative to celebrate, each year, a *World Jerusalem Day* (*World Quds Day* in the *IRNA* piece of news we are quoting here) belonged to Ayatollah Khomeini, the *"founding father"* of the theocratic regime in Iran. On the same occasion, Ahmadinejad told the audience that solving the Palestinian problem by means of extensive diplomatic talks (potentially leading to a compromise accepted by – and acceptable for – all interested parts, an idea continuously and strongly supported by the US) is something to be regarded as completely meaningless *"wishful thinking"*[6].

But the idea of solving the Palestinian problem by means of extensive talks was severely criticised not only by Ahmadinejad (a leader whose fiercely anti-Israeli and anti-Western rhetoric are well-known), but also by other hard-line conservative

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[4] *"Iran's Rouhani Sworn In as President"*, *Al Jazeera*, published on 4 August 2013, at www.aljazeera.com/video/middleeast/2013/08/2013843428202796.html

[5] *"200 Foreign Reporters to Cover Endorsement, Inauguration of Rohani – Official"*, *IRNA*, 31 July 2013, at http://en.irna.ir/News.aspx?Nid=80757087

[6] *"Ahmadinejad: Solving Palestine Problem through Talks is a Wishful Thinking"*, *IRNA*, 2 August 2013, at http://en.irna.ir/News.aspx?Nid=80759167

Iranian leaders (see, for example, Ayatollah Ahmad Khatami[7] – who is just an obvious opposite, in political terms, of former *moderate* President Mohammad Khatami). Ayatollah Khatami publicly stated, on the occasion of the religious and political ceremonies which took place on 2 August, that *"Muslims today chant 'Down with the US' and 'Down with Israel', thus voicing their… support for the oppressed"*. Ayatollah Khatami also told the audience that the *"tyrant US government"* deliberately misuses *"the chance gained out of Muslims ignorance"* in order to support the idea of extensive talks between Israel and the Palestinians. Khatami said that such *"peace talks… have had not the least benefit for the Palestinians"* and said that *armed 'resistance'* is the only acceptable method[8].

It is worth remembering that Ahmadinejad and Ayatollah Khatami were not alone, on 2 August, in issuing public messages dealing with foreign affairs topics. The so-called *'moderate'* Hasan Rohani also spoke about the significance of *World Jerusalem Day (World Quds Day)*, using concepts and ideas clearly exhibiting his true political beliefs. Rohani strongly underlined that this celebration represents *"a legacy of the late Imam Khomeini"*. Rohani strongly criticised Israel, very openly – even if using less aggressive (or at least more cautious, more carefully controlled) words than other Iranian leaders – saying, for example, that even *"on the eve of peace talks"*, the Israeli government *"continues aggression and expansion of settlements"* in different regions of the West Bank, a territory where Muslims have *"their historical right"* which they clearly *"have not forgotten"*[9]. Such statements belonging to Rohani, who was to become, only two days later, President of Iran can be understood in two different ways, both of them *very* useful for our evaluation of his future policies. First of all, directly recalling the memory of Khomeini is a clear sign that Rohani does not want – and, most probably, is not permitted – to design and build a really new, pragmatic and completely non- (or trans-) ideological political project.

[7] In 2006, Ayatollah Khatami publicly asked Pope Benedict XVI to *"fall on his knees"* in front of senior Muslim clerics. One year later, the same hard-line conservative cleric revived the idea of death penalty for the notorious author Salman Rushdie (an idea originating from a *fatwa* issued, some years ago, by Khomeini himself). In 2009, Ayatollah Khatami stated that the people protesting against the result of general elections in Iran are simply outlaws who are guilty of heinously waging war against Allah (a capital crime to be punished by death, according to the traditional Islamic law). For all these elements see *"Ahmad Khatami"*, Wikipedia, at https://en.wikipedia.org/wiki/Ahmad_Khatami; more recently, on 22 January 2012, Ahmad Khatami attacked in strong words the Western world and warned that Bahrain and Saudi Arabia *"will pay"* for being partners of the West – see the 1 minute and 49 seconds *"Ayatollah Ahmad Khatami Attack West and Warn Bahrain and Saudi Arabia"*, on *YouTube*, at http://www.youtube.com/watch?v=hmVGxE1TYOc

[8] *"Ayatollah Khatami: Peace Talks Not Least Helpful for Palestinians"*, *IRNA*, published on 2 August 2013, at http://en.irna.ir/News.aspx?Nid=80759302

[9] *"Rohani: Public Turnout in Rallies Is Strong Backing for Palestinians"*, *IRNA*, 2 August 2013, at the Internet address http://en.irna.ir/News.aspx?Nid=80759080

Secondly, *the verbal attack launched by Rohani against Israel – and, even if not directly, against the US, the main strategic partner of the Israeli state – shows that the new Iranian president is not at all an innovative leader in the area of foreign affairs but, on the contrary, an obedient follower of an already established aggressive tradition which has been powerfully illustrated by Ayatollah Khomeini and, more recently, by President Ahmadinejad*[10].

We must also mention that, at the end of the large state-sponsored *'spontaneous'* rally in Tehran, on the occasion of World Jerusalem Day, the participants (who have set ablaze the American flag and the Israeli flag) *'adopted'* the ten points of a Declaration[11]. Its text, carefully analysed, accurately tells us *how potent the Islamic hard-line conservative pressure in shaping Iran's vision of international relations is* (the same text also tells us *how limited are the real chances that Rohani might significantly change the main elements of the Iranian foreign policy and of the Iranian grand strategy)*.

Some Elements of Rohani's Foreign Policy and Strategic Priorities Agenda

We already know, for quite some time, *a few* – maybe even the *priorities* – of Hassan Rohani's orientations regarding his country's *foreign policy and grand strategy*[12]. During an interview published in June 2013 by the *Ashraq Al-Awsat* newspaper, Rohani strongly attacked Israel, which he accused of using *"destabilising and inhumane practices and policies in Palestine and the Middle East"*. At that moment, the Iranian official also openly expressed his support for Damascus (which, let us not forget, is exterminating members of the opposition, no matter what their orientation is, as well as tens of thousands of innocent civilians, with *direct* Iranian support), which he, in a laudatory way, presented as being *"the only country in the region"* to oppose Israel. Rohani also mentioned that *"Iran will continue to support the Palestinian cause with all its heart"*. These statements seem to clearly indicate that, in Rohani's foreign policy plans, *Iran will continue to be actively (and massively) involved in Syria*

[10] For a very interesting – and *fully* professional – evaluation of the *Shiite* Iranian and its *real* regional and global foreign policy agenda see, for example, the way in which Count de Marenches, former chief of the French foreign intelligence service (SDECE), spoke about post-revolutionary Iran, in Christine Ockrent, Contele de Marenches, *Consilier de taină al puterii*, Humanitas, Bucureşti, 1992, pp. 204-207.

[11] *"Iranians Support Quds Liberation, Removal of Zionist Regime"*, *IRNA*, 2 August 2013, at http://en.irna.ir/News.aspx?Nid=80759035

[12] This part of the text offers a more complete (or *'upgraded'*) version of some ideas in Florin Diaconu, *"Hassan Rohani: un Ahmadinejad cu faţă ceva mai umană"*, in *Revista 22*, 16 June 2013, at www.revista22.ro/hassan-rohani-un-ahmadinejad-cu-fata-ceva-mai-umana-27668.htm

(where, according to international press, Tehran is sending weapons and has combat troops), in order to support the Assad regime, will continue to consistently support the Palestinian Hamas, and will continue to exert pressure on the entire Middle East's frail balance of power. In such conditions, we specified since July, current year, in the plan of Iran's future foreign policy, it is possible for Rohani to be just a sort of Ahmadinejad *"with a more humane face"*, respectively a more flexible leader when it comes to tactical measures and discursive techniques, but with a political and strategic agenda which are dominated by the obsession of regional hegemony, as well as by the obsession of an imperial, exceptional destiny for the Iranian Shi'a.

The natural conclusion of the elements which were presented so far is that, beyond his cleverly built *'moderate'* image, it is very likely that Rohani does not wish to – even more, he cannot – set a new course for the Iranian foreign policy. Therefore, it is very likely that during Rohani's presidential mandate, Iran will continue to be a consistent risk factor, as well as a hot spot for instability, and a conflict generator on the international stage, both at regional and global level.

What the West Can Do in Order to Deter Iran, which Will Most Likely Continue to be Expansionist, Aggressive and Anti-Western

One of the methods to *deter* Iran (or, to be more precise, to deter the aggressive-expansionist segments of its foreign policy and grand strategy) is that of *generating and consolidating regional coalitions, and especially the defensive and counter-offensive capabilities of the West's partners in the Persian Gulf region*. In April-June 2013, the US, the most important actor on the contemporary international stage, participated in two major military exercises with command elements and troops, in the Greater Middle East region: one in the Persian Gulf area and the other in Jordan.

The first[13] of these two really large military activities was the annual, multilateral *Eagle Resolve* exercise, conducted with *"naval, land and air"* forces by the *"US* […] *and Gulf Cooperation Council regional partners at various locations throughout Qatar and the United Arab Emirates, from 21 April-6 May"*. According to a press source, *"Eagle Resolve is a multi-national event designed to support cooperative defence"*, and this grand military exercise *"demonstrates US Central Command's*

[13] For a more detailed presentation of these two large and recent military exercises involving US units acting in the Area of Responsibility (AoR) of CENTCOM see dr. Florin Diaconu, *Statele Unite şi "Noul Golf": provocări strategice şi răspunsuri tactice*, *Policy Paper* nr. 4 (July 2013), published by the Romanian Diplomatic Institute, at www.idr.ro/publicatii/Policy%Paper%204.pdf

(CENTCOM) *dedication to GCC (Gulf Cooperation Council) regional partners and the combined efforts to sustain regional security and stability"*[14]. On 21 April, CENTCOM published a short informative material, which stated according to American officials that *"nearly 3 000 military forces from about 14 different countries"* were going to be involved in the *Eagle Resolve* exercise and the list of *"invited countries includes Saudi Arabia, Bahrain, Egypt, The United Arab Emirates, France, Jordan, Iraq, Italy, Kuwait, Lebanon, Oman, Qatar, the United Kingdom and the US"*. The material also stated that a complete official list regarding the segments and scenarios which composed the exercise contains explicit reference to the following distinct, but also complementary elements: *"a multilateral command post exercise, a field training exercise, and a senior leader seminar"* (without being very clear if we are only talking about people with important *military* responsibilities, or if we are also talking about *civilian* political leaders in the area). According to CENTCOM, the purpose of this grand military exercise was to *"assist in building cooperative defence and regional capacity to address emerging and evolving threats"*[15].

The second large multinational military exercise that recently took place in the Middle East was *Eager Lion*. According to a text posted on the site of the *American Department of Defense* (DOD), which assembles pieces of information from the *US Central Command News Releases*[16], *"service members from 19 countries"* have participated in this grand military drill. The same source estimates *"more than 8 000 Eager Lion participants"*, of which *"about 5 000"* were American service members, *"from all services"*. Major General Robert Catalanotti, CENTCOM's Director for Exercises and Training, stated that *"all of this combined training, led by the Jordanian armed forces, will come together [...], strengthening the partnership between 19 countries and increasing the ability of participating nations to operate together during any contingency"*[17].

Of course, the procedure of constituting, consolidating and testing the regional capacities in dealing with an eventual Iranian attack is just one of the elements of a much more complex set of instruments. *International sanctions* – which are already very harsh – could also significantly reduce the excessive ambitions and the aggressive

[14] Fragments from a brief text *"Exercise Eagle Resolve 2013"*, on *DVIDS – Defense Video & Imagery Distribution System*, at http://www.dvidshub.net/feature/EagleResolveâ.UekLLtJSjkp

[15] *"Exercise Eagle Resolve 13: April 21-May 6, 2013"*, *CENTCOM Public Affairs*, 21 April 2013, at www.centcom.mil/fact-sheet/execise-eagle-resolve-13-april-21-may-6-2013

[16] *"US Forces, Regional Partners Kick off 'Eager Lion' in Jordan"*, *US Central Command News Releases*, 11 June 2013, at http://www.defense.gov/news/newsarticle.aspx?id=120255

[17] *Ibid.*

character of the Iranian foreign policy. Of course, there are also other paths of action, some of which are carefully examined in different special papers and volumes[18].

It remains to be seen if the political leadership from Tehran (including the *new* President Hassan Rohani) will act as a fully *rational actor*, progressively and deliberately reducing regional tensions, especially the ones in the Persian Gulf area and in the region around Israel or, if by making use of *foreign policy and grand strategy means*, will continue to allocate important resources and make major efforts in order 'to break' the current balance of power in the Middle East, to the expense of major geostrategic interests of the Western world (which, let us remind again, also includes Romania).

[18] One of the most interesting collective volumes of this sort is Ilan Berman (editor), *Taking on Tehran: Strategies for Confronting the Islamic Republic*, Lexington Books, Lanham, Boulder, New York, Toronto, 2007.

SOME OBSERVATIONS ON THE EVOLUTION OF CONTEMPORARY CHINA'S MILITARY POWER

Cătălin Mihai AVRAM

The article evaluates some open source data, presented especially by Western officials or the media, regarding the evolution of China's military power, focusing on the evolution of China's defence spending over years. The goal of such an endeavour is to try to determine to what extent the pieces of open source information can lead to the conclusion that Chinese policymakers aim at using the full array of benefits derived from a policy of fully exhibiting considerable military power. However, this strategy may alter the security balance in the Asia Pacific region, with obvious and significant global implications, as it may lead to the acceleration of regional arms race.

***Keywords**: international relations; national power military component; naval power; defence expenditures*

How Much Does a Dynamic Military Power Cost? The Case of Contemporary China

In *1994*, China's official military budget is just under *10 billion dollars*. In *2002*, it already doubles to *20 billion dollars*, while United States intelligence agencies lean towards observing that the *real figure* might actually be closer to *65 billion dollars*[1]. In *2005*, the figure *triples* in comparison to 1994, thus hitting the official landmark of *30 billion dollars*[2], with American intelligence agencies *suspecting* the figure to be closer to *90 billion dollars*[3]. In *2007*, Beijing declares military expenditures of somewhere over *40 billion dollars* while *pessimistic* perspectives on the issue suggest a figure closer to *140 billion dollars*[4]. In *2009*, Beijing is already officially spending on military

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[1] Report to Congress Pursuant to the FY2000 National Defense Authorization Act, *"Annual Report on the Military Power of the People's Republic of China"*, 2002, p. 5.

[2] Office of the Secretary of Defense, Report to Congress Pursuant to the FY2000 National Defense Authorization Act, *"Annual Report on the Military Power of the People's Republic of China"*, 2006, p. 19.

[3] *Ibid.*

[4] Office of the Secretary of Defense, Report to Congress Pursuant to the FY2000 National Defense Authorization Act, *"Annual Report on the Military Power of the People's Republic of China"*, 2007, p. 19.

related issues *6 times more money than in 1994, that is to say 60 billion dollars*. In *2008*, the Department of State actually estimates that China's military investments in technologies tend to generate *a military budget which is three times larger than Russia's, 7 times larger than India's, and 3,5 times larger than Japan's*[5]. Lately, "on March 5, 2013, Beijing announced a 10,7 percent increase in its annual military budget to *$114 billion, continuing more than two decades of sustained annual defense spending increases*. Analysis of data *from 2003 through 2012* indicates China's officially disclosed military budget *grew at an average of 9,7 percent per year* in inflation-adjusted terms over the period"[6]. According to the Department of Defense, the real figure might be found, as of 2013, *anywhere between 135 and 215 billion dollars*[7].

Between *1994 and 2009*, China's *official* military expenditures rose by *50 billion dollars*, averaging *a growth rate of 3,3 billion dollars per year*, while between *2009 and 2013* the same budget *increased by 54 billion dollars*, *averaging* a rise of *13,5 billion dollars per year*. This obvious acceleration of military expenditures growth represents in itself a worrying and meaningful situation. A refined explanation as to why such a trend may be observed will be described at the end of the article itself. However, for the time being, we shall be satisfied with evaluating what China has supposedly done with all this money, in regard to some key areas of interest.

How to Modernise Armed Forces after the Cold War?

The main improvement of Chinese military technological equipment may be observed in the navy, with some *consistency* in regard to the interest manifested by Beijing in this field over time. To this extent, we may observe that, in China's case, by *2007*, *navy forces modernise by 20%, submarines 30%, the air fleet only by 10% and the air defence capabilities by 25%*[8]. China thus buys a Kuznestov class airplane carrier[9] from Ukraine in 1998[10], *which it reconditions and supposedly modernises*. In 2011,

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[5] Office of the Secretary of Defense, Report to Congress Pursuant to the FY2000 National Defense Authorization Act, *"Annual Report on the Military Power of the People's Republic of China"*, 2008, p. 33.

[6] Office of the Secretary of Defense, Annual Report to Congress, *"Military and Security Developments Involving the People's Republic of China"*, 2013, p. 45.

[7] *Ibid.*

[8] Office of the Secretary of Defense, Report to Congress Pursuant to the FY2000 National Defense Authorization Act, *"Annual Report on the Military Power of the People's Republic of China"*, 2007, p. 34.

[9] Office of the Secretary of Defense, Annual Report to Congress, *"Military and Security Developments Involving the People's Republic of China"*, 2013, p. 56.

[10] *"US Satellite Snaps China's First Aircraft Carrier at Sea"*, in *The Guardian*, 15 December 2011, http://www.guardian.co.uk/world/2011/dec/15/us-satellite-china-aircraft-carrier, retrieved on 16 August 2013.

the vessel at hand is already undergoing its first tests while being accidentally photographed by a Digital Globe satellite[11] . Afterwards, the vessel is again spotted at the beginning of 2012 leaving the Dalian port in order to perform some additional tests[12]. Finally, the vessel *is commissioned to the PLA Navy on 25 September 2012 under the name of Liaoning* (name of a province in North-Eastern China which opens to the Yellow Sea. The name itself is written in Chinese using two characters, the first being specific of the word Liao, a river in the region, and the second being translated as *peace* or *peaceful*)[13]. The name of the vessel, as well as its positioning in the *Qingdao* port[14], *suggests China's interest for creating an instrument which might militarily balance strategic scores between China and Japan, especially in regard to keeping the USS George Washington airplane carrier, which has been stationed in Yokosuka in 2012 along with some 90 military aircraft*[15]*, at a safe distance.* The aim might also be that of maintaining control over countries such as *North Korea* and *South Korea*. However, *it is not certain if the carrier is itself capable of fulfilling any of these strategic tasks.*

The first planes land on the deck of the Chinese carrier on 26 November 2012. These have been custom build for the occasion and are similar, according to Chinese sources, to the *F18* and the *Su33*[16], although the plane used by China has not yet been in the heat of combat. It has been built by the Chinese after buying a *Su 33* from the Ukraine, which experts believe to have been used in order to *supposedly create a relatively solid copy*[17], after negotiations with the Russians over buying several original *Su33*s failed sometime after 2006[18]. The aircraft's maiden flight takes place in 2010 and ever since *its efficiency has been questioned by specialists as the plane has never been used in any real time combat*[19].

[11] *Ibid.*

[12] John Reed, *"China's Carrier Back at Sea"*, in *Defensetech*, 29 November 2011, http://defensetech.org/2011/11/29/photos-chinas-carrier-back-at-sea/, retrieved on 16 August 2013.

[13] Office of the Secretary of Defense, Annual Report to Congress, *"Military and Security Developments Involving the People's Republic of China"*, 2013, p. 73.

[14] *Ibid.*

[15] Walter Hickey, Robert Johnson, *"These Are the 20 Aircraft Carriers in Service Today"*, in *Business Insider*, 9 August 2012, http://www.businessinsider.com/the-20-in-service-aircraft-carrierspatrolling-the-world-today-2012-8?op=1, retrieved on 16 August 2013.

[16] *"China Lands First Jet on Aircraft Carrier"*, *CNN News*, http://edition.cnn.com/2012/11/25/world/asia/china aircraft-carrier-landing, retrieved on 16 August 2013.

[17] *"Carrier Signal: China's Naval Aviation"*, in *Defense Industry Daily*, 25 November 2012, http://www.defenseindustrydaily.com/china-to-buy-su33-carrierbased-fighters-from-russia-02806/, retrieved on 16 August 2013.

[18] *"China Intends to Buy Russia's SU-33 Fighters"*, *Ria Novosti,* 1 November 2006, http://en.rian.ru/russia/20061101/55289379.html, retrieved on 16 August 2013.

[19] Dillon Zhou, *"China J 15 Fighter Jet: Chinese Officials Defend New Fighter as Chinese Original, but Questions Remain"*, in *Policymic*, January 2013, http://www.policymic.com/articles/20270/china-j-15-fighter-jet-chinese-officials-defend-new-fighter-as-chinese-original-but-questions-remain, retrieved on 6 August 2013.

Overall, China's carrier perspectives will be improving quite soon if we take into consideration the fact that Beijing already intends on building *another two such pieces of armament, with conventional propulsion, by 2022*[20]. The Department of Defense actually makes a point out of underlining the fact that Beijing holds and tends to use *ever more advanced and modern technologies in order to boost its military capabilities*[21]. China has also aimed over the years at producing different types of armament and munitions that may have the ability of *cancelling strategic advantages of owning a carrier in the first place*. It is the case of the *Dong Feng 21D (DF-21D) anti-naval ballistic missile also known as the carrier destroyer*[22]. Armed with a *conventional warhead*, the rocket *should* have theoretically changed the power balance scheme in the Pacific region ever since its deployment in 2010, but, over time, *intense scepticism has been manifested over the rocket's efficiency in combat*[23]. Tests done by the Chinese military demonstrate the fact that the rocket does have the ability of hitting, with some accuracy, *a perimeter within the Gobi desert similar to that of an aircraft carrier* but, as defence analyst Roger Cliff has pointed out, the rocket is *dependant of radar* elements *which can be blocked, destroyed or jammed by the US Navy* and that, within a real world scenario, when the rocket is seeking to hit something different than sand, it is quite probable that American naval forces may utilise a *vast array of protocols in order to get out of harm's way*[24]. Moreover, other sources suggest that the area which the rocket itself may cover has been greatly exaggerated by the Chinese military and that *such a weapon may only be considered as a deterrent used by China within its military strategy*[25].

Brief Conclusions

Why can we witness such an interest for *exhibiting military performance*, why such interest for the *navy* itself in the first place? Because, over time, as part of the military strategy, but also as part of the grand strategy viewed as such, with all necessary details and related domains, *a series of sovereign actors have aimed at the development of a behaviour of exhibiting military power.*

[20] *"China to Build 2 More Aircraft Carriers: Taiwan"*, *Agence France-Presse*, 12 May 2012, http://www.defensenews.com/article/20120521/DEFREG03/305210003/China-Build-2-More-Aircraft-Carriers-Taiwan, retrieved on 16 August 2013.

[21] Office of the Secretary of Defense, Annual Report to Congress, *"Military and Security Developments Involving the People's Republic of China"*, 2013, p. 56.

[22] Michael J. Cole, *"The DF-21D or Carrier Killer: An Instrument of Deception?"*, in *The Diplomat*, 22 April 2013, http://thediplomat.com/flashpoints-blog/2013/04/22/the-df-21d-or-carrier-killeran-instrument-of-deception/, retrieved on 16 August 2013.

[23] *Ibid.*

[24] Robert Johnson, *"China Successfully Tests Carrier Killer Missile in the Goby Desert"*, in *Business Insider*, 25 January 2012, http://www.businessinsider.com/chinas-carrier-killer-missile-test-proves-df-21d-lives-up-to-name-2013-1, retrieved on 16 August 2013.

[25] Michael J. Cole, *op. cit.*

The concept of exhibiting military power has itself been defined by Hans J. Morgenthau, who places such a strategic action within the framework of the full array of means used by sovereign actors in order to construct and strategically use prestige. In a nutshell, showing off different kinds of abilities, of different natures but which are linked by the fact that they have all reached real or imagined *excellence*, provides a state with the prospect of discouraging other actors from trying to change the status quo (much like a Cobra expands its neck in order to seem a bit bigger and more aggressive). To the point, *"because of the high mobility manifested by fleets, capable of sticking their flags and of projecting power over the whole globe, as well as due to their impressive character, naval demonstrations have always been an instrument of choice for prestige politics"*[26]. Vessels can freely travel the entire globe, efficiently covering and shorting distances, and when such elements are associated with abilities such as bearing aircraft or other complex military technological means, they create an effect of *fear and respect* among adversaries, *deterring* possible plans on their behalf of injuring the state which exhibits military power or *preparedness* in the first place.

China needs – for reasons of *geostrategic* relevance, which are not at all difficult to understand – to exhibit, as visibly as possible, a considerable military power, within the foreseeable future, in order to assure itself of a stable environment needed for all its long-term *strategic* projects. But such a strategy may backfire in quite a destructive manner over the security environment of the entire globe. Many regional powers have already been caught in China's game and have thus begun an *accelerated arms race*. News regarding Indian carriers is an example of such a prospect, with India clearly aiming at coping with the increase in Chinese military preparedness with equal force and resolve.

[26] Hans J. Morgenthau, *Politics among Nations: The Struggle for Power and the Struggle for Peace*, Polirom, Iași, 2007, p. 121.

REORGANISATION OF THE US STRATEGIC NUCLEAR FORCES DURING THE GEORGE W. BUSH ADMINISTRATION (January 2001-January 2009)

Alexandru-Tudor DIACONU

After the end of the Cold War, the international nuclear environment is marked by profound changes. For the United States, the biggest challenge is no longer Moscow's atomic arsenal. At the beginning of the 21st century, the greatest threat that Washington has to deal with is represented by the mixture of rogue states, terrorist cells and weapons of mass destruction. The new threats are often unpredictable. Given the new state of affairs, the George W. Bush administration changes the way the US strategic nuclear forces are organised: the nuclear arsenal is reduced and modernised (in order to be as flexible as possible), missile defence assets are deployed, and nuclear non-proliferation efforts are reinforced. The Bush administration basically tries to counter the new nuclear threats using all available means.

Keywords: *rogue states; nuclear terrorism; strategic forces; missile defence; nuclear strategy*

The end of the *Cold War* and the collapse of the Soviet Union have generated major changes of the international environment. Apparently, the end of the bipolar rivalry meant a worldwide increase in the general level of security. However, on the *nuclear weapons* level, Washington was confronted with some new challenges. Local powers, like Iran or North Korea, were hostile towards the US, had regional hegemonic ambitions and wished to obtain nuclear weapons, in order to sustain their claims. This type of actors obviously represented a lesser threat than the USSR, but a much more volatile one[1].

Strategic risks and threats taken into account by the US in the period of George W. Bush's presidential mandates

For a better understanding of the post-*Cold War* nuclear environment, we must see the situation from the perspective of the new actors: we are dealing

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[1] Ivan Oelrich, *Missions for Nuclear Weapons after the Cold War, Occasional Paper no. 3*, Federation of American Scientists, January 2005, p. 12.

with a series of medium and small states, which had regional interests and ambitions and wanted to cause the limitation or the compression of American power. These states understood they did not possess the necessary resources to defeat the US through a direct conventional conflict. Thus, they were looking for asymmetrical means to challenge the American power, and the option of nuclear armament was the most attractive one[2]. In the case of certain states, like North Korea or Iran, the possession of nuclear weapons represented a major hazard, because it could have triggered a regional arms race, which would have resulted in the demise of the international non-proliferation regime[3] (founded upon the Non-Proliferation Treaty, signed in 1968). The risk of proliferation was amplified by the fact that, in the past, both Washington and Moscow had repeatedly emphasised the importance of nuclear weapons for their security doctrines, concepts and strategies. Since the world's greatest nuclear powers so heavily relied on weapons of mass destruction, it is easy for us to understand why other actors wished to join the nuclear club[4].

After the end of the *Cold War*, on a nuclear level, the biggest threat for Washington was (and still is) represented by the so-called *rogue states*. In order to be labelled as a rogue, a state had to fulfil certain conditions: it either had or was willing to obtain weapons of mass destruction, it sponsored international terrorism, it systematically violated human rights, and it represented a threat to American interests and to regional or global security[5]. These states had various reasons for possessing nuclear weapons: in order to obtain parity with their neighbours or traditional enemies, in order to obtain regional dominance[6] or to at least spread their sphere of influence. For example, North Korea was developing a nuclear programme so it could contest the American presence in South Korea, but also because both the Russian Federation and China, located nearby, had such capabilities. From ancient times, Iran thought of itself as the main regional power and the possession of a nuclear arsenal would have basically confirmed this status[7].

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[2] Thomas Preston, *From Lambs to Lions: Future Security Relationships in a World of Biological and Nuclear Weapons*, Lanham, Maryland, Rowman & Littlefield Publishers, Inc., 2007, p. 30.

[3] Joseph Cirincione, *Bomb Scare: The History and Future of Nuclear Weapons*, New York, Columbia University Press, 2007, p. 86.

[4] *Ibid*, p. 106.

[5] Astrid Forland, *"Preventive War as an Alternative to Treaty-Based Nuclear Non-Proliferation"*, in Morten Bremer Maerli, Sverre Lodgard (eds.), *Nuclear Proliferation and International Security*, New York, London, Routledge, 2007, pp. 32-33.

[6] Sidney D. Drell, James E. Goodby, *The Gravest Danger: Nuclear Weapons*, Stanford, California, Hoover Institution Press, 2003, p. 32.

[7] *Ibid*, p. 33.

It was very difficult for the United States to tell just how dangerous a rogue state could be, because most of them did not declare their nuclear capabilities. Because of that, analysts were obliged to rely on limited pieces of information and suppositions, which, on numerous occasions, proved to be inexact and did not entirely reflect the reality[8].

Another threat which had risen in the post-*Cold War* nuclear environment was that of *nuclear terrorism*. We believe that nuclear terrorism transcends the logic of *Mutually Assured Destruction (MAD)* and of *Deterrence*. A decentralised and scattered terrorist cell was hard to track down. You cannot massively retaliate or use nuclear deterrence against such a threat. In order to build a nuclear warhead, any terrorist group had to obtain enriched plutonium or uranium. In addition, it had to have ample financial resources and possess the needed infrastructure to build such a device; of course, the entire process had to be kept a secret[9]. It was practically impossible. Thus, if a terrorist cell were to get hold of a nuclear weapon, it most likely would have done so by theft or by acquiring it from a rogue state.

At the end of the 20th century, the American perception about the danger posed by rogue states, armed with ballistic missiles, had its origin in the *Rumsfeld Commission Report*[10], drew up in July 1998. According to the document, the efforts made by states that were (possibly) hostile towards the US to obtain ballistic missiles, with a nuclear or chemical load, represented a growing threat. The problem was that these actors were unpredictable, and nobody could guarantee that they would respect the set of rules established by the United States and the Soviet Union during the *Cold War*. Certain states with regional ambitions did not accept the American presence as a stabilising factor; if they gained access to nuclear technology, they could develop weapons of mass destruction, which they could then use in order to restrain Washington's influence in their area of interest. According to the document, a country like North Korea could obtain intercontinental ballistic missiles within five years. One of the report's conclusions was equally alarming: the intelligence community's ability to offer exact data in a timely manner about the danger represented by ballistic missiles was degrading, which meant that the US could be taken by surprise and prove to be unable to successfully deal with such a situation.

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[8] T. Preston, *op. cit.*, p. 11.

[9] S. D. Drell, J. E. Goodby, *op. cit.*, p. 45.

[10] *Executive Summary of the Report of the Commission to Assess the Ballistic Missile Threat to the United States*, 15 July 1998, at www.fas.org/irp/threat/bm-threat.htm

Another danger, almost as grave as ballistic missiles, was represented by cruise missiles. These were very easy to build or acquire, had a flight range of at least 600 miles, could be very accurate and, most importantly, could fly at low altitude, which made them almost impossible to be detected through radar[11]. Cruise missiles could be equipped with a small nuclear warhead.

In the eight years spent at the White House, the George W. Bush administration was the first to have drawn up a completely different nuclear strategy, unrelated to the *Cold War* legacy, a strategy that focused upon the realities of the post-*Cold War* nuclear environment. This was facilitated by the fact that, in the American president's view, the United States and the Russian Federation no longer regarded each other as enemies or direct threats. On a nuclear level, the bilateral relation was catalogued as being one founded upon cooperation against the new challenges.

Reorganising the US strategic-nuclear forces: major milestones

After the September 11 terrorist attacks, the danger represented by rogue states and terrorist cells was more obvious than ever. The threat could be even greater, if these actors obtained weapons of mass destruction. In 2002, the Department of Defense drafted the *Nuclear Posture Review (NPR)*[12], the second of its kind, after the one published in 1994. Basically, the *NPR* proposed the reorganisation of American strategic-nuclear forces. The first pillar of this readjustment stated that the nuclear triad – *intercontinental ballistic missiles (ICBM), submarine-launched ballistic missiles (SLBM) and strategic bombers* – was to be maintained. The second pillar was represented by the growing need for missile defence to be developed and deployed. According to the third pillar, the revitalisation of the defence infrastructure was necessary. This implied the retirement of old weapons, the development of new capabilities and the renewal of the nuclear complex.

The document also identified the four main roles that the nuclear force structure had to achieve: assure, dissuade, deter and defeat. The strategic forces had to assure the defence of American and allied territories. The second role – dissuasion – seemed to be almost synonym with deterrence. However, there was a difference. Dissuasion implied discouraging adversaries from arming

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[11] Jeffrey A. Larsen, Kerry M. Kartchner, *"Emerging Missile Challenges and Improving Active Defenses"*, in Barry R. Schneider, Jim A. Davis (eds.), *Avoiding the Abyss: Progress, Shortfalls, and the Way Ahead in Combating the WMD Threat*, Westport, Connecticut, Praeger Security International, 2006, p. 135.

[12] *Nuclear Posture Review [Excerpts]*, www.stanford.edu/class/polisci211z/2.6/NPR2001leaked.pdf

themselves: it was not supposed to discourage an attack, but competition[13] (a possible arms race). Of course, there was no guarantee that dissuasion would prove to be effective. The last two roles were strongly related: if deterrence failed, Washington had to be able to make use of a wide variety of offensive capabilities, in order to defeat any enemy.

NPR also identified the greatest threats to American interests. Among the rogue states, these were North Korea, Iraq, Iran, Syria and Libya. Using nuclear weapons was also taken into account in the case of an Israeli-Arab conflict, in the case of a Chinese attack against Taiwan or if North Korea decided to attack the South. Nukes could also be used if the American territory was subject to biological, chemical and conventional attacks, even if the aggressor had no nuclear capabilities[14]. In addition, the NPR proposed a significant reduction in the number of deployed strategic missiles. In 2001, the US had an operational arsenal composed of roughly 11 000 warheads[15]. However, according to the document, a number of 1 700-2 200 strategic nuclear weapons was deemed sufficient in order for the US to successfully promote and protect its geostrategic and security interests.

In the aftermath of the September 11 terrorist attacks, it became even more obvious that the Russian Federation was no longer the core around which the American nuclear strategy was built. For the Bush administration, the international climate had irrevocably changed and the combination of rogue states, terrorist cells and weapons of mass destruction had become the main enemy of the American strategic forces[16]. Thus, the *National Security Strategy*[17] (NSS) of 2002 confirmed that Washington's main concern was represented by terrorist organisations (or any sponsor states), which were trying to acquire weapons of mass destruction. The combat strategy against such threats had to be represented by counter-proliferation efforts. According to the document, the US had to make sure that certain key capabilities (detection, defenses and counterforce) were perfectly functional.

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[13] Sidney D. Drell, James E. Goodby, *"What Are Nuclear Weapons For? Recommendations for Restructuring US Strategic Nuclear Forces"*, in Sidney D. Drell, *Nuclear Weapons, Scientists and the Post-Cold War Challenge Selected Papers on Arms Control*, London, World Scientific Publishing Co. Pte. Ltd., 2007, p. 243.

[14] Michael D. Intriligator, *"Rethinking US Nuclear Weapons Policy"*, in Richard Falk, David Krieger (eds.), *At the Nuclear Precipice: Catastrophe or Transformation?*, New York, Palgrave Macmillan, 2008, p. 68.

[15] Nick Ritchie, *US Nuclear Weapons Policy after the Cold War: Russians, Rogues and Domestic Division*, London, New York, Routledge, 2009, p. 68.

[16] *Ibid*, p. 61.

[17] *The National Security Strategy of the United States of America*, September 2002, at www.state.gov/documents/organization/63562.pdf

Furthermore, non-proliferation efforts had to be reinforced by diplomatic ones, as well as by arms and exports control. In addition, consequence management improvements were deemed necessary, in order for the US to successfully react in the case of a possible nuclear aggression. NSS clearly stated that, in order to prevent hostile actions and defend itself, Washington was ready to act in a preemptive fashion. Preemption meant that the US no longer had to be forced into conflicts, but chose its own wars[18].

In 2002, strongly connected to the NSS, another document was drawn up: the *National Strategy to Combat Weapons of Mass Destruction (NSCWMD)*[19]. According to the document, the national strategy to combat weapons of mass destruction was based upon three pillars: counter-proliferation efforts, strengthening the non-proliferation regime and consequence management. History had proven that non-proliferation efforts could not always be successful. Because of this reason, Washington had to try and stop nuclear materials, expertise and technology from spreading. In addition, the adoption of certain measures was very important, measures that would allow military forces and adequate civil agencies to successfully carry out their missions, in case the US would be engaged in a (limited) nuclear conflict. NCSWMD also advised the development of defensive systems, which could offer protection in the event of a possible nuclear aggression. Non-proliferation efforts implied the reinforcement of the Non-Proliferation Treaty and of the Cooperative Threat Reduction Program *(Nunn-Lugar)*, as well as a more strict control of American exports. Consequence management meant that the US had to be ready to quickly and efficiently react if an enemy used weapons of mass destruction against American or allied soil.

Another significant document produced by the Bush administration was the *Doctrine for Joint Nuclear Operations (DJNO)*[20], published by the Department of Defense, in 2005. The document highlighted the importance of strategic deterrence, whose purpose was that of persuading enemies from not setting themselves of dangerous courses of action. According to the DJNO, it was very important for the US to influence its enemies' decision-making process. In addition, Washington had to be ambiguous about the situations in which it could use nuclear weapons.

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[18] M. D. Intriligator, *op. cit.*, p. 69.

[19] *National Strategy to Combat Weapons of Mass Destruction*, December 2002, at www.fas.org/irp/offdocs/nspd/nspd-wmd.pdf

[20] *Doctrine for Joint Nuclear Operations*, 15 March 2005, available at www.globalsecurity.org/wmd/library/policy/dod/jp3_12fc2.pdf

This had the purpose of creating doubt among enemies. The DJNO reconfirmed the role of nuclear forces: assure, dissuade, deter and defeat. The document also presented the criteria for evaluating nuclear forces: survival against an initial attack and retaliation, up to an unacceptable degree of destruction. In order to achieve its security objectives, Washington had to persuade its enemies that the use of nukes was on the table. There were cases in which an adversary could be willing to risk heavy losses, or even total annihilation; this equated to the failure of deterrence. Because of this reason, the US had to be prepared and capable to defeat any enemy, at any given time or place.

Starting with Reagan, the idea of deploying a ballistic missile defence (BMD) system became a constant on every president's agenda. After the American withdrawal (December 2001) from the *Anti-Ballistic Missile (ABM) Treaty*, from a legal perspective, the Bush administration had every right to deploy such a defensive system. Shortly, the *Missile Defense Agency (MDA)* was established, within the Department of Defense. The MDA had substantial funding: under the Bush administration, about 10 billion dollars were spent every year[21] for the elaboration of BMD systems.

The experts had reached the conclusion that, if the US were to be attacked with nuclear weapons, the delivery vehicle would be represented by a ballistic missile, very hard to intercept, and able to hit its target, anywhere on the globe, in less than an hour. The ballistic missile defence system imagined by the Bush administration implied the deployment of the following capabilities: 20 land-based interceptors, of which 16 at Fort Greely, Alaska, and four at the Vanderberg, California USAF base. Another 20 sea-based interceptors (SM-3 missiles) were to be placed on three Aegis ships[22]. In addition, more radar systems were to be placed in Alaska, the UK, and Greenland, as well as more satellites, capable to detect and differentiate between a nuclear ICBM and a decoy[23]. The Bush administration was also interested in deploying some elements of the BMD system on the territory of certain NATO European allies. However, this only remained an idea until the coming of the Obama administration.

[21] Richard Dean Burns, *The Missile Defense Systems of George W. Bush: A Critical Assessment*, Santa Barbara, California, Praeger Security International, 2010, p. 90.

[22] J. A. Larsen, K. M. Kartchner, *op. cit.*, p. 149.

[23] *Ibid*, p. 151.

Brief conclusions

The Bush administration designed a nuclear strategy which had the purpose of imposing American supremacy on a global scale. The strategic forces were organised by the criteria of maximum flexibility, in order to successfully respond against any possible threat. It was established that the nuclear arsenal, although reduced, had to be powerful enough to deter any enemy, dissuade any arms race, offer safety to Washington and its allies, and defeat any adversary. In addition, the US was willing and able to use preemptive actions against any enemy. An example in that direction was the case of the American military intervention in Iraq.

Unlike his predecessor, Obama has proposed a significant reduction of the importance of nuclear weapons for American security and strategic doctrines. Through another *Nuclear Posture Review (2010)*, the current administration has undertaken to renounce developing new types of nuclear warheads. In addition, for the first time in history, Washington has announced that it is not willing to use nuclear weapons against other states that do not possess such capabilities. The Obama administration has also begun the process of deploying elements of the BMD system in Europe. The radar-equipped *USS Monterey* has been sent to the Mediterranean Sea. From 2015, land-based components of the defence system are to be deployed, including on Romanian soil.

SECURITY ISSUES IN IRAQ, BEFORE AND AFTER THE WITHDRAWAL OF THE US-LED MULTINATIONAL COALITION FORCES

Hamid H. KAMBASH

The brief study explores, from an Iraqi perspective, and based on open source data provided by Iraqi and Western authors, the key issues of security and stability in Iraq over the past few years. In the context of the Arab Spring, not only the government of Iraq but also other governments in the region are confronted with practically similar problems, such as the establishment or reform of institutions, the potential legitimacy of the institutions, and the inclusion of the population expectations in the political context. The author shows that although many mechanisms have been employed so that Iraq can become a democracy, the state reconstruction in Iraq has been hindered by the pre-existing conflicts as well as by the division between different Iraqi ethnic, political and religious groups and factions.

Keywords: *Iraq; the USA; security; ethnic, political and religious conflicts*

The moment the US decided, once again, to military intervene in Iraq, against Saddam Hussein's regime, back in May 2003, the American political leaders had a purpose which they presented publically, repeatedly and very clearly: the institution of a solid liberal democracy, with an open market economy, so that Iraq could relatively quickly become a functional democracy, similar to the Western ones, with a stable economy, as well as a key ally of the United States in the Persian Gulf region, and, in a broader geostrategic sense, the entire Middle East. *However, the state rebuilding process in Iraq has been slowed down for years, because, in addition to the split between different ethnic, religious and political Iraqi groups and factions, many pre-existing conflicts were maintained and emphasised,* to which we can also add a number

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In this short study, the concept of *security* covers not only military-related issues, but also a much wider thematic area, in close connection to the ideas expressed by the *Copenhagen School*.

of American policy implementation errors. These policies were aimed to ensure the control and the catalysing of the entire democratic transformation process in Iraq. Many theorists explain that the manner in which the United States coordinated the establishment of democracy in Iraq has not only created new realities, institutions and opportunities, but has also generated additional conflicts between local powerful actors and within different layers of the Iraqi society itself, which is still built upon important traditional structures. Hence, the inevitable result was the apparition of large scale negative phenomena: corruption, violence and contraband. One of the main inevitable consequences of the US military intervention was the excessive fragmentation of authority in Iraq, a state which often hosts ardent disputes between the actors on the political stage regarding political authority. In addition, there are neither procedures, nor institutions that are solid enough to solve these disputes. As long as this will be the state of affairs, the authority and the general efficacy of the Iraqi state will be fairly limited.

Some authors believe[1] that mechanisms like elections, training of officials (with various ranks and with different attributions) or even coercive instruments of repression will not be decisive in changing the situation. In the context of the *Arab Spring*, Iraq and other governments from the region are confronted with a wide variety of practically similar problems: establishing and reforming institutions, ascertaining the political legitimacy of those institutions, as well as finding a way to include people's expectations in the post-revolutionary political context[2].

In 2005, under the spectrum of American and allied military presence on its territory, Iraq adopted a constitution which defined the first parliamentary cycle as being a period of transition. Between 2005 and 2010, the Iraqi political system was transformed, from one dominated by the split of power among ethnic-sectarian communities to a more unitary and coherent one, with a certain form of democracy, and a strong prime minister (by the responsibilities vested in him). As the United States reduced its military presence in Iraq in 2010, it became obvious that the country's process of democratic transition was not yet concluded. After the March 2010 elections, government election continued to be influenced by the same bargaining process between the ethnic-sectarian communities and by the same tensions that had characterised the Iraqi politics in the five previous years. The idea of having

[1] Eric Herring, Glen Rangwala, *Iraq in Fragments: The Occupation and its Legacy*, Hurst, London, 2006, p. 43.

[2] Andrew W. Terrill, *Lessons of the Iraqi De-Ba'athification Program for Iraq's Future and the Arab Revolutions*, Carlisle, PA, US Army War College, 2012, pp. 24-35.

a nationalist-oriented prime minister, placed above any intercommunity rifts, was far from being successfully brought into force[3].

An important problem, related to the entire process, as well as the calendar or stages of the American and allied military withdrawal from Iraq, was represented by the internal stability and security of the country, which could at the same time affect the major American strategic interests, as well as the safety of US civilians and troops from Iraq. The withdrawal plan approved by the US President, Barack Obama, was conceived (and then brought into force) so that it would overlap (and, as much as possible, complete and consolidate) Iraq's capacity to increasingly maintain its own stability and security. However, military analysts and experts on political science and strategic studies estimated that the end of the American military presence could significantly disrupt the strategies of the main Iraqi political actors (and, indeed, to a great extent, this is what happened). In the event that the opposition groups (Sunni that are frustrated with the rupture with tradition, in which they completely dominated the state, Kurds who are asking for an increasingly growing autonomy, as well as militant Shi'a groups) win the power, the US interests and the American personnel would take a heavy blow. Thus, the Iraqi central government can either improve or cause damage to the security and stability of the Iraqi state and society. In the end, it all depends on the rational manner in which the central government confers with the opposition groups, or, on the contrary, it could all depend on the different political actors' fierce desire to gain more and more power, even if this means ignoring the general interests of the entire society[4].

The manner in which the withdrawal of the American and allied troops from Iraq has influenced the country's conditions and security environment is one of the main problems for the US in the last years, before and after the retreat of armed forces was completed. In a collective study, David C. Gompert, Terrence K. Kelly and Jessica Watkins have presented the Iraqi state of affairs[5], through different descriptive figures, which we will refer to below.

In these important authors' vision, the core of political order (see *Figure 1*) is composed of the political actors who are willing to participate in the establishment

[3] Ramit Nuri, *"Ninawa: Tahalafat Sa'aba wa Khiyarat al-Inshiqaq al-Kurdi" (Ninawa: Alliances are Problematic, and the Options for the Kurdish/Arab Schism Are Even More So)*, in *Dar al Hayat*, 10 March 2010.

[4] Tariq al-Humayd, *"La Lil-Taslih al-'Iraq"*, in *Al-Sharq al-Awsat*, London, 10 September 2009.

[5] C. Gompert, Terrence K. Kelly, Jessica Watkins, *Security in Iraq. A Framework for Analyzing Emerging Threats as US Forces Leave*, RAND Defense Research Institute, 2010, pp. 7-14, http://www.rand.org/pubs/monographs/MG911.html

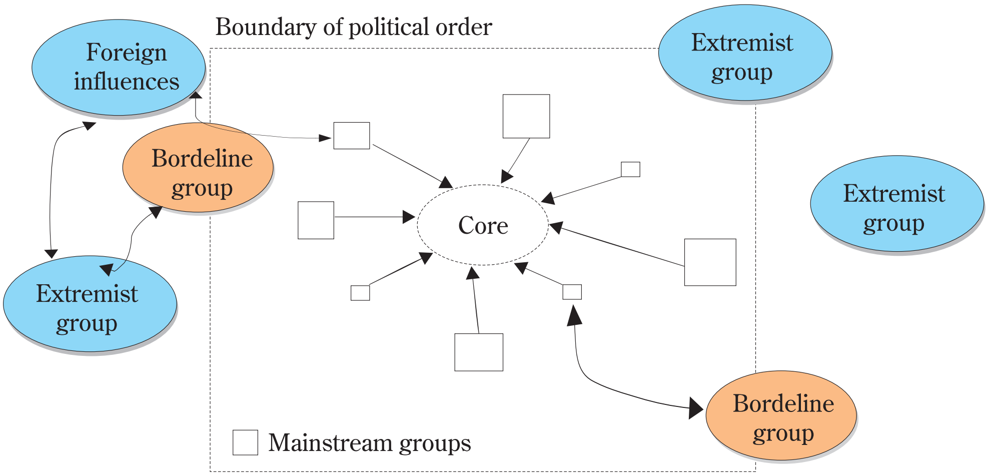


Figure 1

of public order and that of a government. These groups have chosen peaceful competition and cooperation in order to achieve their goals. In this manner, the stability of the core (the very future of Iraq) depends on the choices and rational decisions of these actors, as well as on the degree of violence in the country. If they are not controlled, the actions of each and every one of these actors could lead to a possible civil war. Placed beyond the boundaries of political order, extremist violent groups either refuse to cooperate or are shunned by the actors who choose to create and maintain order. *Borderline groups* can oscillate between getting or not getting involved in the core that assures political order; they can rely on political commitments, or on violence and coercion[6].

Figure 2 presents a diagram that allows a better understanding of the way in which the cycle of violence in Iraq arises and works. The conflict between the Sunni and the Shi'a has produced violence and, basically, a state of war, which meant important costs and backwardness in the area of political commitment (on a line that leads to a democratic political system, compatible with the Western type), as well as in the area of the general progress of society. Chronic insurgency, which has a massive (especially nationalist) component caused by the Sunni, was conducted, at first, by foreign jihadists and then by Iraqi ones. Religious excesses, respectively the Sunni terror, committed by Sunni extremists against the Shi'a, and vice-versa (the Shi'a terror, committed against the Sunni) have provoked

[6] Mujahedin-E Khalq, *"Qanun Tasdiq Itifaq bayn Jumhuriyat al-'Iraq wa al-Wilayat al-Mutahida al-Amirikiya bi Sha'n Insihab al-Quwat al-Amirikiya min al-Iraq wa Tanzim Anshitatiha khilal Wujudiha al-Mu'aqqat fihi"*, November 2011, pp. 11-24.

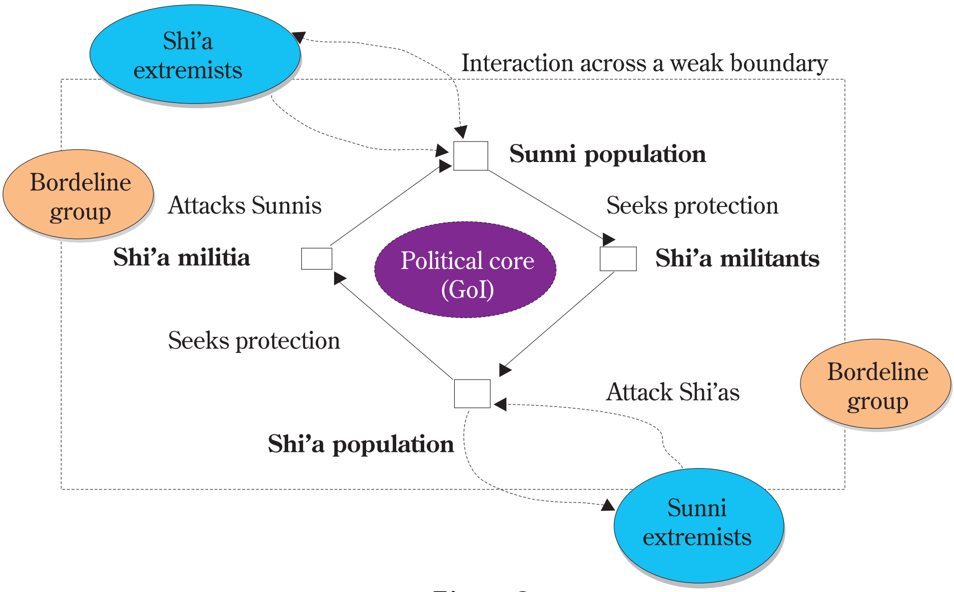


Figure 2

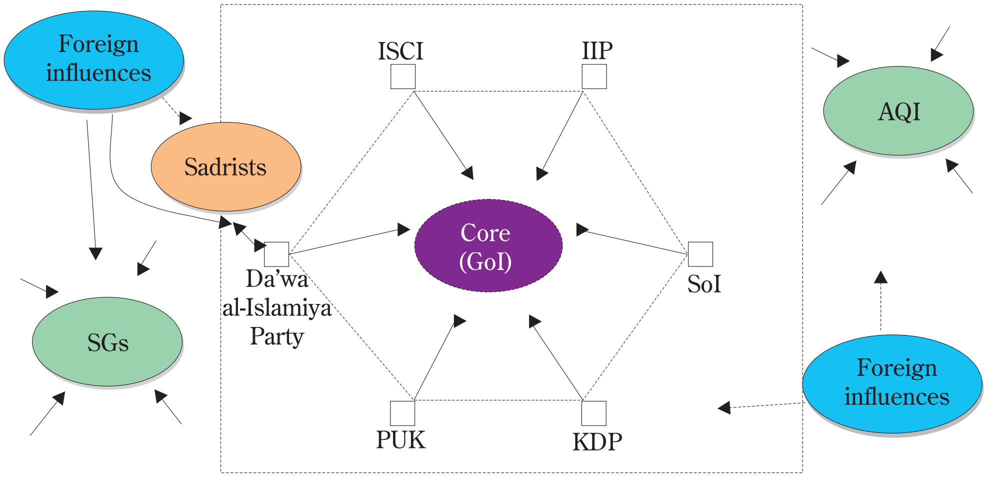
violent mutual retaliation, which often scaled, without anyone being able to control or stop it, not even the religious and political groups, strongly represented and with significant roles in the governmental process.

Thus, the political core of stability inside the Iraqi society has been fractured and weakened, and its limits – the borderline between the main groups with a moderate political agenda and extremists – are not always clear and significant. As we can see in *Figure 2*, the cycle of violence has known cut-offs when the jihadist terror aimed against Sunni communities produced side-slips, causing the Sunni insurgents to turn against their former extremist collaborators[7].

Figure 3 indirectly reveals that the three main groups – the Sunni, the Shi'a and the Kurds – have agreed upon public order, even though it is rather unstable, and have tried their best to avoid large scale violence. These groups are better at leading and controlling political support, resources and fighting capabilities than the Sunni and Shi'a *extremists, who are placed outside the core of political order*[8]. Although Iraqi extremists still resort to the use of violence, they have lost much of their ability to instigate members of the main political and religious groups to fight. Because of this, violence in Iraq has been significantly

[7] *"Al-Iraq fi Marhalat ma ba'd al-Sahwat al-Sunniya wa al-Tashazhi al Shi'i"*, in *Dar Al Hayat*, 20 June 2011.

[8] Abu Rumman Mohammad, *"Al-'Iraq: Sanduq al-Iqtira', Maehalian, Badl Sanadiq Juthath al-Maqtu'a al-Ru'us"*, in *Dar al Hayat*, 8 February 2011.



ISCI = Islamic Supreme Council of Iraq;
IIP = Iraqi Islamic Party;
KDP = Kurdistan Democratic Party;
PUK = Patriotic Union of Kurdistan;
AQI = Al Qaeda in Iraq;
SGs = Shi'a Special Groups;
SoI = Sons of Iraq;
GoI = Government of Iraq.

Figure 3

reduced, a level of order has been achieved, and important steps have been taken, in the sense of political progress, thus giving more strength to the government. It has also improved the safety and the standard of living of the Iraqi society[9].

Extremist terrorism continued even after the withdrawal of American troops from Iraq. Specialised studies show how unlikely it is for large scale conflicts to be stopped, as long as one of the main groups reacts excessively to whatever the political adversaries are undertaking, by making use of violent acts or even terrorism (including attacks against religious buildings or against political and administrative leaders). Taking into account how difficult it is to prevent such acts, we believe the US will probably have to make use of its diplomatic, military and economic influence, so as to maintain a minimal consensus, in order to avoid situations which can scale uncontrollably[10]. The conflict between the Kurds and the Arabs will most likely represent an ample threat. Thus, in the future, the United States will have to make use of its influence in order to avoid possible confrontations. Another priority for important actors on the international stage is that of encouraging rapprochement between the Sunni and the Shi'a. This is also an important concern for the responsible political forces in Iraq, which, beyond their differences, are very keen on stabilising and developing the country, as well as establishing security, in the interest of general progress.

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[9] Tariq al-Humayd, *"Al-Insihab al-Amriki al-Sakut al-Thani"*, in *al-Sharq al-Awsat*, London, 9 October 2007.

[10] Ard al-Takhali'an Mansibihi, *Muqabil Inha'Nizam al-Muhasasat al-Tai'fiya al-Jashemi: al-Istifa'ala al Itifaq al-Amni Wasila lil Taswib wa al-Islah*, pp. 21-57.

SWEDEN: A SPECIAL NATO PARTNER?

Ryan C. HENDRICKSON

This article is intended to point out Sweden's consistent presence in NATO's operational environment, despite the fact that it is not a NATO member, the author writing that the country certainly ranks near the top among those which created, strengthened and improved their partnerships with the Alliance.

To illustrate this, he mentions Sweden's meaningful and substantive assistance to NATO's Operation Unified Protector in Libya, an operation during which Sweden reached a new level of partnership, which has no parallels among partner states.

Over the course of the entire operation, Swedish planes flew 570 operations.

The author concludes that such a military contribution has few peers among partner nations, and for NATO and the allies, again demonstrates just how valuable a partner can be.

***Keywords**: partnerships; Sweden; Operation Unified Protector; Gripen; Nordic Battle Group*

Among the policy agendas advanced during his tenure as NATO's Secretary General, Anders Fogh Rasmussen has been a robust advocate for the creation of new and enhanced partnerships for the Alliance. Many states have cultivated closer ties to NATO during his leadership, including Australia, Ireland, South Korea, New Zealand and Mongolia. But Sweden certainly ranks near the top among those whose bonds have been strengthened and improved.

Sweden and NATO share many priorities. Whether it is protection of human rights abroad, promotion of democracy, advancement of women,

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The article was featured in the *NATO Review*, *Partners – Who Needs Them?* issue, 2013, http://www.nato.int/docu/review/2013/Partnerships-NATO-2013/Sweden-partnerships/EN/index.htm

Ryan C. Hendrickson – Professor of political science at Eastern Illinois University and author of *Diplomacy and War at NATO: The Secretary General and Military Action after the Cold War*.

or the willingness to respond to crises and threats, these priorities have become increasingly evident during Secretary General Fogh Rasmussen's tenure.

But Sweden is no newcomer to NATO. Since the onset of NATO's Partnership for Peace programme in 1994, of which Sweden was an initial member, this *"neutral"* ally has been anything but ambivalent to NATO or its transition to a post-Soviet world.

In NATO's operational environment, Sweden has been consistently present too, whether on the ground with peacekeepers in Bosnia and Kosovo, or in the Indian Ocean in EU and NATO anti-pirate policing operations.

Since 2006, Sweden has had civilian and military professionals on the ground in the International Security Assistance Force (ISAF) in Afghanistan. It has played a leadership role in a Provincial Reconstruction Team in Mazir-e-Sharif and has 400 people on the ground helping to advance political and economic stability in the surrounding region. As it works on the transition to Afghan-led teams, Sweden will work with NATO allies Norway and Latvia, as well as with NATO partner Finland. In doing so, Sweden not only advances democratic development abroad, but also gains a seat at the table in shaping Alliance policy directions.

But it was during NATO's Operation Unified Protector in Libya that Sweden reached a new level of partnership, which has no parallels among partner states.

The first notable aspect was how quickly Sweden responded to the 2011 Libyan crisis. After the United Nations Security Council passed Resolution 1973 and NATO requested Swedish assistance to the operation, the Swedish parliament quickly authorised Sweden's participation in the mission, in a vote of 240 to 18 with 5 abstentions. Though public opinion polls across Europe varied, most Swedes strongly favoured of their country's engagement. The domestic political debate in Sweden over its military engagement for the mission was quite limited.

The Swedish parliament authorised the contribution of eight Swedish *Gripen* aircraft, a C-130 *"Hercules"* refuelling aircraft, and one *Gulfstream IV* surveillance aircraft. In addition, 130 Swedes helped carry out the mission. Within two days of Sweden's parliament's decision, the *Gripens* were ready in place at Sigonella Air Base in Sicily.

Though the Swedish parliament placed an important caveat on the *Gripen's* role, including a prohibition against the use of force on ground targets, the Swedish Air Force still found significant ways to assist the Alliance. Over the course of the entire operation, which was Sweden's first air deployment since the 1960s United Nations operation in the Congo, Swedish planes flew 570 operations. Some of these missions were simply police enforcement of the no-fly zone. Its C-130s also carried out refuelling operations.

More importantly, by midway through the operation, the Swedes had provided at least 30 per cent of all reconnaissance sorties. It was here, along with the diplomatic significance and benefit of having Sweden's cooperation, where Sweden provided the most meaningful and substantive assistance to the Allies.

In all, Sweden provided 2 770 reconnaissance reports to NATO. Due to past training exercises with the allies, and because of the excellent capabilities evident in its *Gripen* aircraft, Sweden deserves high marks for the quality of its interoperable defences and excellent troops. Sweden's defence investments and industry have clearly kept pace, at least on this measure, with military advancements within the Alliance. Such a military contribution has few peers among partner nations, and for NATO and the allies, again demonstrates just how valuable a partner can be.

In a forthcoming publication, Swedish defence expert Robert Egnell makes a strong case that it was partly Sweden's activities in the EU's Nordic Battle Group that allowed it to respond so rapidly to NATO's request for assistance. When the crisis unfolded, Sweden was participating in its rotational training exercises with the Battlegroup, which helped foster a rapid response to NATO's request for assistance. Sweden's previous participation in other NATO operations and training exercises also paved the way for a relatively easy transition into *Unified Protector*.

Despite domestic political concerns over full membership of NATO, Sweden and its public have demonstrated how a NATO partner can truly assist the Alliance, while simultaneously advancing its own national foreign policy priorities. This partnership allows Sweden to excel where its strengths are evident, and gives Sweden a place in NATO's diplomatic and operational settings. Put simply, both sides benefit.

FOOD SECURITY
– An Unfashionable Subject Often Taken for Granted –

Dr Magnus BJARNASON

Food insecurity still blights some areas of the world. But the main problem, in the author's opinion, is not the overall amount of food. It is its correct distribution. Just changing this could save millions of lives and reduce conflict.

In the first part of the article, the author writes about food security, which is a very strategic subject, because without food people do not last very long.

Then, he writes about the fact that food can be used for warfare, both for conventional wars with a front-line and for modern day terrorist warfare, providing us with some examples in this respect.

He concludes by mentioning the fact that the pressure on both the basic production and distribution systems will be large in the future, therefore, it is time to think ahead and good agricultural land will become increasingly important in the coming decades.

***Keywords**: food security; food terrorism; world population growth; food safety*

Food security does not come by itself. Citizens of many NATO member states have grown accustomed to taking food for granted, yet food supply problems in Europe are still within living memory. The Second World War caused serious food supply problems in many areas, and after the war, the communist system imposed on Eastern Europe until 1990 failed to deliver the full variety of food consumers expected. Food shortages can be caused by war, terrorist attacks on the supply chain, natural disasters, diseases, food poisoning and economic mismanagement where planning fails and/or prices are out of reach for consumers.

Under NATO's comprehensive strategic approach, member states must focus increasingly on the security requirements of citizens and civil societies, i.e. a total defence concept, rather than focussing narrowly on international diplomacy and military hardware for conventional conflicts of the past. Yet, food security is an almost exclusive

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prerogative of civilian institutions, e.g. the United States Department of Agriculture, the European Union's Directorate General for Agriculture and national ministries of agriculture.

Food security and food safety is not the same thing. Food security is a question of reliable food supplies for all the population, all the time, and under all circumstances. Food security is a very strategic subject because without food people do not last very long. On the other hand, food safety is more a *"civilian"* subject and deals with quality of food designed for human consumption, its nutritional value, food hygiene, long-term health effects, additives used in the production and similar subjects.

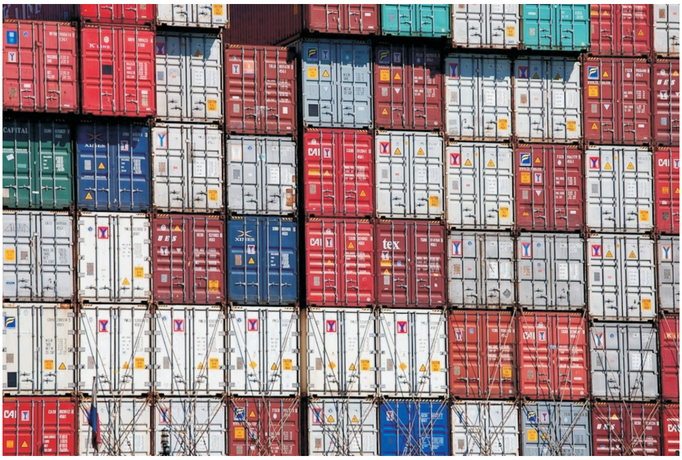
Food can be used for warfare, both for conventional wars with a front-line and for modern day terrorist warfare. A recent example of food used as a weapon in a conventional war with a front-line is the Bosnian war of the early 1990s. During the Bosnian war, closing off an area or city under siege and restricting the food supply was just as efficient as a weapon intended for political coercion as shelling the area or city. In that particular war both means were often used in combination, strangling the food supply chain and artillery shelling.

An example of food terrorism was the quicksilver poisoning of the Israeli Jaffa oranges by Palestinians three decades ago. The Palestinian idea was to create a scare to damage Israel's economy since Jaffa oranges were a well-known Israeli trademark. When the news of the quicksilver poisoning came out, the scare caused was indeed considerable, especially when seen in the light of how few oranges were in fact poisoned.

There can be little question that states must hold strategic food reserves in case of unexpected food security or food safety problems. In modern day Europe and North America this has been very successful. Food safety problems have emerged, e.g. dioxin poison in milk or Mad Cows Disease, yet the systems have coped with it with ease without any starvation or supply problems. But in order to guard against the unforeseen and unexpected, there must be a certain overproduction of food in case something goes wrong. Overproduction is expensive and must be paid for, but there is no way around it. It is like an insurance premium to be paid if the worst happens – and food is the most important good humans need, apart from air and water. This is expensive and agricultural policies in many industrialised countries often consume directly and indirectly 1-2% of national gross domestic products (GDP), an amount on par with military defence budgets in some countries.

To complicate matters, the overproduction of food must be disposed off and throwing food away is often considered politically incorrect in a world with many poor and starving. Private individuals clean out old foodstuff stored in their kitchens with regular intervals and the governments occasionally need to dispose of and renew strategic stocks stored in national food supply systems. Some of the strategic overproduction is exported, often with subsidies from the taxpayer, and some is given as food aid to poor countries. Such food gifts – or food sold at dumping prices – sounds good at home, but in reality it undermines the domestic food production of the recipient country and breeds dependency on the rich and *"generous"* donor country. Helping poor nations to help themselves is better than just helping by donating stuff for consumption, except in strict famine emergencies that require urgent action.

Many wise men and women will now point out that overproduction of food is not necessary and if extra food is needed it can be bought in the world markets. It is correct that limited food rarely means any food at all and the rich can always afford to eat at will. However, there is a problem with the reliability of world markets. When food prices rose unexpectedly fast at the end of last decade, some governments put on export restrictions to keep domestic food prices down in order to assist their domestic population that was struggling to pay for daily food and could not compete with the rich westerners. In time of food panic, NATO member states cannot rely on international world markets as a reliable supplier of food. In the past, governments have often used food rationing amongst their citizens if the food supply is limited. Obviously food rationing is often supplemented by an illegal black market for those who can afford it. After all, food must not only exist, but must also be affordable and having abundant reserves keeps the price down.



From an economic perspective it is tempting to buy food from abroad that is cheaper than food produced at home. Such economic savings must, however, be weighted against the risk of becoming dependant on importing strategic goods. Being dependant on somebody else's oil is bad and having to depend on somebody else's willingness to supply food is even worse. The economic waste in agriculture in industrialised countries – between 1-2% of GDP – would quickly be matched by increased military expenditure to defend vital food supplies, in a similar way the world spends billions on military hardware to secure the oil and gas supplies that cannot be produced at home. Trade is good, but it must be balanced with strategic intentions.

In the first years after the Second World War, Europe was a net importer of food. Today the situation is reversed and the current European Union is a net exporter of food – and so is North America. Being a net exporter does not mean just an outward flow with export only. The international trade in food, both imports and exports, is huge as different types of food are made in different parts of the world were natural conditions are better than at home. The full variety of food is only assured through international trade, although a strategic war reserve of basic foodstuff can and must be produced at home.

Having a national supply of strategic goods such as basic food stuff sounds good, but domestic food production and food distribution in the industrialised world is only possible as long as there are abundant energy supplies. Without oil, tractors in the field and lorries transporting food to consumers will quickly come to a halt. Bio-fuel is only a partial answer. Bio-fuel is essentially diesel fuel made out of grain. The idea of home-grown diesel may sound like an interesting option, but it is also a major factor in pushing food prices up. When cars start to compete with humans over food, the poorest in society will start suffering, as they will find it increasingly difficult to pay their food bill. On the other hand, the world oil reserves will at one point be used up and other energy must be found, but that time is still decades ahead, if not more.

The most serious long-term problem is the exponential world population growth, being at one billion (thousand millions) in the year 1800, 1 ½ billion in 1900, 3 billion in 1960, 6 billion in 2000, 7 billion as of this writing, and estimated to be 9-10 billion in 2050. The food and energy consumption of the 10 billion people in 2050 will not be 10-fold of the 1 billion consumers in the year 1800, but much beyond that. This is because the modern man is not satisfied with only a slice of bread or a bowl of rice as long as he can afford meat, fish, exotic vegetables or other variety of food. But *"growing"* a kilogram of meat requires much more grain than if Homo sapiens eat the grain themselves directly, rather than using it as animal feed and then eat the animal. As such, the pressure on both the basic production and distribution systems will be large in the future. It is time to think ahead and good agricultural land will become increasingly important in the coming decades.

FEEDING OR FIGHTING

Geoff HISCOCK

The author looks at how enough food production and water usage for everyone is attainable. Nevertheless, he writes that further conflict awaits if no progress is made.

First, he points out the areas most likely to face food shortages and those affected by drought, floods, disease and pests, at the same time noting that the world produces enough food to feed its current population, the real problem being the lack of a workable mechanism to get this food to where it is most needed. In his opinion, storage and distribution are the two big challenges, compounded by conflict and poor governance in certain countries.

In the end, he mentions the efforts made by international organisations to put these issues on their list of priorities, increase sustainable agriculture, develop food markets, boost farmers' welfare and improve access to food for vulnerable groups.

***Keywords**: environmental security; climate change; food security*

The world looks to have won a brief reprieve from a food security crisis, with grain prices stabilising in the last few months of 2012 after a mid-year surge that brought back memories of the 2007-08 food riots.

But as the UN's *Food and Agriculture Organisation (FAO)* warns in its latest outlook (6 September 2012), the need for vigilance is ongoing. Volatility is likely to be a hallmark of the year ahead as a combination of water stress, weather extremes, civil strife, population growth, urbanisation, inefficient distribution systems and spiralling demand for more water-intensive food continues to put pressure on global supply capacity.

North Africa and West Africa's Sahel region – where 18 million people are going hungry this year – are again the areas most likely to face food shortages in 2013. Drought in the Horn of Africa has dispersed almost a quarter of Somalia's population to refugee camps in Ethiopia and Kenya. In the conflict-hit border zone between Sudan and South Sudan, high food prices add to the existing tension.

The article was featured in the *NATO Review*, the *Food, Water and Energy* issue, 2012, http://www.nato.int/docu/review/2012/Food-Water-Energy/Feeding-Fighting/EN/index.htm

Geoff Hiscock is the author of *"Earth Wars: The Battle for Global Resources"*.

Drought in the United States and Eastern Europe, floods in South America and crops hit by disease and pests in China have all helped push down food production in 2012, though higher prices mean farmers in developed economies will maintain their incomes.

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In Australia – a key southern hemisphere grain producer – a long spell of dry weather after devastating floods in 2010-11 means that the 2012-13 wheat harvest is likely to be around 22,5 million tonnes (or about 6 per cent) below the mid-year estimate.

On average, the world's wheat growers produce about 3 tonnes a hectare, with intensive farming in Europe showing the greatest yields above 8 t/ha and some New Zealand farmers getting 15 t/ha. China and India, the world's two biggest wheat producers, are both around 3 t/ha, as is the United States.

While greater yields are desirable, output is not really the issue. The world produces enough food to feed its current population of 7 billion and with innovations in cropping techniques, seeds and other inputs, has the capacity to feed the other 2 billion expected by 2050, even in the face of continued climatic extremes.

What it lacks is a workable mechanism to get this food to where it is most needed.

Not too little, just too little where needed

The rich countries have plenty of food, while the poor countries lack the money and the infrastructure to get beyond subsistence. Storage and distribution are their two big challenges, compounded by conflict and poor governance.

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The world also must somehow lessen the impact that rising food production – particularly meat – has on the globe's most precious resource: clean water.

Inefficient water use – whether from leaking pipes, run-down irrigation systems, a failure to recycle or simply profligate usage that takes no account of the full cost of water – is setting up the world for water wars. Wherever there is a river or freshwater lake with more than one claimant to its water, the potential for conflict exists.

We see that today in tensions between India and China over the Yarlung Zangbo-Brahmaputra system, between China and its downstream neighbours over the Mekong River, between India and Pakistan over dams on the Indus River and in the Middle East between Israel and its neighbours over the Jordan River.

Water stress is not going to go away. By 2020, India and China, the two biggest water users and home to 2,5 billion people between them, will face difficult decisions over how they price their water resources. Increasing prosperity will lift demand for more food, including protein-rich meat and dairy, whose production consumes more water. Imports can help, of course: China is likely to import 80 million tonnes of soybeans and 20 million tonnes of corn by 2015.

One consequence of this prosperity is that China is drawing on its groundwater faster than rainfall can replenish it. This unsustainable water use increases pressure to find new water sources, such as river diversions from the west, or from as-yet unexploited aquifers.

Food inefficiency

India is an example of how mismanagement of its food supply chain hurts the poorest of the poor. Chaotic rural transport connections, a lack of cold storage facilities, rapacious middlemen, occasional banditry, weak governance, poor quality control and the all-pervasive cloud of corruption hang heavy over the Indian hinterland, where 800 million of the country's 1,2 billion people live.

Up to 30 percent of India's fresh food is spoilt, pilfered or otherwise lost in transit – which means that irrespective of how bountiful the monsoon rains may be in any given year (2012 saw a relatively weak monsoon), it is this vexed journey from farm to consumer that saps the lifeblood from Indian rural families.

Even the mechanised and well-watered large landholders of the Punjab – traditionally among India's most prosperous communities and the standard-bearers for the 1970s *"Green Revolution"* that pushed up crop yields – now face a fresh set of social and environmental problems stemming from excessive use of fertilisers and subsidised irrigation leading to groundwater depletion.

The situation is even worse in poorer parts of Asia such as Bangladesh. And in Africa, civil war, clashes over water usage and the general vagaries of the weather have kept large parts of the continent impoverished. That makes starvation an ever present fear for many millions of people there.

Even so, in Africa and around the world generally, it is bad water that kills more people than starvation, war or any other cause. Children are particularly vulnerable to waterborne diseases such as diarrhoea, typhoid, cholera, polio and gastroenteritis. According to the *World Health Organisation (WHO)*, 2,2 million children under the age of five die every year from dirty water, inadequate sanitation and a lack of hygiene.

Putting answers into action

With the right measures, these deaths can be prevented. There is a significant economic benefit too, with the *WHO* estimating that clean water and better sanitation can add between 2 and 7 percent to a country's gross domestic product.

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There are signs the magnitude of the food and water challenge is at last being recognised outside of the *World Bank*, UN agencies such as the *FAO* and the *World Food Programme*, and environmental groups. The *Asia Pacific Economic Cooperation (APEC)* meeting in Vladivostok in early September, for example, had food security and commodity supply chain improvements high on its list of priorities.

Leaders of the 21 APEC nations – who account for more than 50 per cent of global GDP – agreed to increase sustainable agriculture, develop food markets, boost farmers' welfare and improve access to food for vulnerable groups. They also committed to achieving a 10 percent improvement in supply-chain performance by 2015 in the Asia-Pacific region – not just in food, but across all goods and services.

A recent report entitled *"The Global Water Crisis: Addressing an urgent security issue"*, by the InterAction Council of eminent former leaders, estimates that the value of water related businesses will grow from about $520 billion five years ago to $1 trillion by 2020.

But today, about 2 billion of the world's people lack adequate sanitation and about 1 billion of these also lack access to safe, reliable water supplies. Imagine the economic benefit if these figures were substantially reduced.

CONSIDERATIONS ON THE ACTIVITY OF THE *AMERICAN RED CROSS* IN ROMANIA DURING THE FIRST WORLD WAR (1917-1918)

Dr Cristina CONSTANTIN

The article presents the activity of the American Red Cross in Romania between 1917 and 1918, based on the archive materials belonging to the National Archives of Romania, consisting of the official mail correspondence between Queen Marie of Romania and representatives of the American Red Cross Mission in our country.

Queen Marie's Memories are another important source of information in this regard. The presence of the American Red Cross in Romania during the First World War significantly contributed to the development of the relationships between Romania and the United States of America.

***Keywords**: American Red Cross; Queen Marie of Romania; First World War*

The unprecedented scale of the conflict that broke out in 1914, as well as the complexity of the issues caused by the war, both in the front line and behind the front lines, revealed the importance of an organisation that expanded globally in the late nineteenth century and early twentieth century: the *Red Cross*[1]. The organisation carried out activities in various conflict areas, taking care of the wounded, the sick etc. and providing support for orphans of war and civilians.

As far as our country is concerned, it is better known the activity of the *French mission* arrived in Romania on 3/16 October 1916, with hospitals in Roman – French Hospital no. 243, in Iași – French Hospital no. 641 and Hôpital Français Nôtre Dame de Sion.

The French Medical Mission arrived in our country on 23 October 1916 in Ungheni,

Dr Corina Constantin – Head of the Documentation Section, the National Military Museum *"Regele Ferdinand I"*.

[1] The *International Red Cross* was established after the battle of Solferino (24 June 1859) between France and Austria, following initiatives of Swiss businessman Henry Dunant. As a result of his actions, it was organised the international conference of representatives of European countries

following a request from the Medical Service of the Great General Staff to the Ministry of France in Bucureşti. In early May 1917, another 60 French doctors would arrive[2]. The activity of the *British Red Cross Mission*, which arrived in the country in November 1916, was also efficient. It had a hospital in Buftea, near Bucharest, from where it was moved after the evacuation to Roman, having the number 481, being also given the name of *"Prince Mircea"*. In November 1917, this hospital would be placed under the responsibility of the *American Red Cross*.

The visit of the American Mission to a Romanian command post on the Moldova front, 16 October 1917

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and the USA, in 1864, which approved the Geneva Convention for the Amelioration of the Condition of the Wounded in Armies in the Field. The *Romanian Red Cross Society* was founded on 4 July 1876, its first president being Prince Dimitrie Ghica, after Romania had previously joined the Geneva Convention in 1874. Carol Davila was Vice President and members were Nicolae Kreţulescu, C.A. Rosetti, Ion Ghica, Androcle Fotino and Iuliu Al. Theodory; see colonel (r.) dr. Gheorghe Sanda, *Istoria medicinei militare româneşti*, Fundaţia *"Gl. mr. dr. C. Zamfir"*, Bucureşti, 1996, p. 187.

[2] Colonel (r.) dr. Gheorghe Sanda, *op. cit.*, p. 309.

The US entry into war, in 1917, resulted in increased activity of the *American Red Cross*[3] in Europe. Regarding the US mission in our country, it arrived in August 1917, in a context in which, on 6/19 August 1917[4], the Romanian Legation was established in Washington, Prime Minister Plenipotentiary of Romania in the US being Dr Constantin Angelescu.

According to their data, the *American Red Cross* commission arrived in our country took under its care 500 beds at the military hospital in Roman[5], later becoming in charge of a civilian hospital in Iaşi. More than 20 000 operations and treatments were performed only in Roman.

The visit of American Majors Parker and Kerth to the 3rd Division, Repejoara Valley (Zăbrunţi Mountains, 1917)

[3] The *American Red Cross* was established in Washington, DC on 21 May, 1881, by Clara Barton (1821-1912), who became the first president of the organisation. During the First World War, Woodrow Wilson, US President, became honorary president of the *American Red Cross*, in which quality he urged the Americans to support the efforts of the organisation, a plea that would reach the desired outcome.

[4] Ion Calafeteanu, Cristian Popişteanu (coord.), *Politica externă a României. Dicţionar cronologic*, Editura Ştiinţifică şi Enciclopedică, Bucureşti, 1986, p. 163.

[5] *"The Work of the American Red Cross during the War, a Statement of Finances and Accomplishments for the period July 1, 1917 to February 28, 1919"*, American Red Cross, Washington DC, October 1919, at www.vlib.us/medical/ARC

In Putna, Tecuci and Botoşani, over 40 000 people were fed daily by the *American Red Cross*. A canteen was opened in Iaşi where, for two months, food was offered for 2 000 people. The assets undistributed until March 1918, when the mission was forced to retreat, were given to the Romanian government and to some organisations. Among those assets, there was enough food to feed 2 000 people for about three months, as well as a large quantity of bandages, medicines and clothing[6].

The special relationship that Queen Marie was able to establish with the *American Red Cross* representatives, as well as the guarantee that came with the Queen's involvement in carrying out the joint projects led to an increasing support provided under the circumstances of the winter of 1917-1918.

Queen Marie and some members of the American Red Cross Mission visiting a hospital, 1917

Thus, a letter sent to the Queen by the *American Red Cross*, the Commission for the Balkan States, dated 24 January 1918 (Rome)[7], announced the departure of one of its representatives to Romania to prepare the arrival of a special commission which would be sent later. The letter was signed by Lieutenant Colonel Henry Watkins Anderson. In fact, he was the Chairman of the *American Red Cross* Commission for Romania. Other members of the Commission were: Arthur Graham Glasgow – Vice President, Francis W. Peabody, Bernard Flexner, H. Gideon Wells, Roger Griswold Perkins and Robert C. Bryan – members and a certain Williams, secretary and treasurer[8]. The arrival of the *American Red Cross* in Romania is mentioned

[6] *Ibid.*

[7] Arhivele Naţionale Istorice Centrale (ANIC), *Fond Casa Regală, Personale, Regina Maria, Secretariat*, file 41/1918, p. 1.

[8] *Ibid*, file 42/1918, p. 1.

by Queen Marie in her memories, being considered a *"happy event"*[9]. As far as Colonel Anderson was concerned, Queen Marie had only words of praise for him in her notes: *"He was a charming Virginia gentlemen, a little ceremonious and exceedingly chivalrous. From the first we were friends and worked in perfect and pleasant understanding. They came with full hands and a magnificent supply of provisions of every kind, which seemed quite dazzling at this time of dearth"*[10].

Princess Mărioara, with American and Romanian doctors, 1917

In February 1918, through another note, the *American Red Cross* announced that it authorised the *American Red Cross* mission in Romania (mentioned above) to transfer a number of goods to the Red Cross in Romania: *"The American National Red Cross and the American Red Cross Mission to Romania do hereby authorise the acceptance of the receipt of the National Society of the Red Cross of Romania and said receipt shall therefore operate to fully delivery of said goods"*[11]. The note was accompanied by a detailed list of all the goods to be delivered to the Romanian party and had the logo of the *American Red Cross* in Washington DC. This mission of transfer of *"all shipments of supplies, clothing, material and other goods"*[12] would take place on 24 February 1918.

[9] Regina Maria, *Povestea vieţii mele*, Ediţia I-a, Editura Adevărul S.A., vol. III, p. 330.
[10] *Ibid.*
[11] ANIC, *Fond Casa Regală, Personale, Regina Maria, Secretariat*, file 42/1918.
[12] *Ibid.*

The official document of transfer specified that the US ... *"…brought into Romania a large quantity of medical supplies, food-stuffs and clothing or material"*[13]; in the annex (13 pages) of the document there were listed in detail all these things, among which we mention: coffee, candles, clothing, blankets, knives, soap, footwear, cutlery, bandages, chloroform, cotton, alcohol, apples, beans, biscuits, candy, chocolate, cocoa, frozen fish, pasta, oil, rice, sugar, tea, dried vegetables etc.

Later on, representatives of the mission found that all these goods were in *"process of distribution to the hospitals, to the sick and to the poor and destitute population of Romania"*[14].

The motivation for this gesture of extreme generosity showed that it was the desire of the *American Red Cross* that Romanian people should *"know and feel the friendship of America and the American people for them and this country's desire to help"*[15].

Colonel Anderson's involvement in the work of the *American Red Cross* mission was special, Queen Marie making sure that he was aware of the needs of the Romanian society that was deeply affected by the realities of war: *"I took Colonel Anderson about to the hospitals and drove also far out into the country with him so that, with his own eyes, he could see how terrible was the want in the villages. He followed me patiently, and together we saw many a heartrending sight which fired our desire to help in every possible way"*[16]. The collaboration with the Romanian party took place on several levels, medical aid for hospital, help with supplies and other materials to orphanages or special canteens etc.

A note on 9 March 1918, sent to Queen Marie from Iaşi by the representatives of the *American Red Cross* Commission for Romania, demonstrates this. The document informed the Queen that the orphanage in Sascut received supplies and 17 500 lei and also praised the selfless help of Mrs. Dan-Sacut, Staff Sergeant Max Ludovic (he was responsible for transport) and Sergeant Jean Filipescu[17]. At the same time, it demanded the absolute control of the Queen over the distribution of this aid from the *American Red Cross*.

The Queen thanked for the important help granted in difficult times, both directly, to those who had coordinated this process, and through the media. In October 1918, after meeting with Mr. Mills, the representative of the American Press Association, the Queen wrote: *"…I had a long conversation with him in which we discussed the present and past state of Romania, showing him my gratitude towards America, because it sent such an important mission, which I trusted"*[18].

[13] *Ibid*, file n 43/1918, p. 1.
[14] *Ibid*.
[15] *Ibid*, p. 2.
[16] Regina Maria, *op. cit.*, p. 330.
[17] ANIC, *Fond Casa Regală, Personale, Regina Maria, Secretariat*, file 44/1918, p. 1.
[18] Regina Maria, *op. cit.*, p. 336.

Queen Marie, with the retinue, together with members of the allied missions in Iași, 7 March 1918

The US mission's effective organisation and supplying made it work in very good conditions: *"The tremendous amount of material they had at their disposal enabled them to work under the best of circumstances. Besides, they were unbelievably hardworking and skilled and knew how to get their work done. I shall never be able to express all my gratitude for all the help they gave me when we were all left in the depths of despair"*[19].

A touching moment was when the Queen was invited, on 25 November 1917, to the US mission, on *"Thanksgiving Day"*. On this episode, the Queen wrote in her notes: *"Americans have a large staff and everything appeared as satisfactory and flourishing as possible. It was something very American, because it was America's national holiday, 25 November – Thanksgiving Day and they were all happy to have us among them. Of course, they served pumpkin pate at the end, because tradition demands it. Beside me stood on one side Colonel Anderson and on the other Mr. Baker, a member of the British Red Cross, two pleasant companions"*[20].

The political context in February-March 1918 forced the departure of all allied representatives in the country. Colonel Anderson also received a departure order, but before leaving he went to the Queen with of all the members of his unit, in order to say goodbye, and the Queen took care to thank them for their support.

Another way of thanking them was to confer certain honours to the members of the *American Red Cross mission*. Thus, by *High Decree no. 421 of 24 February 1918*[21], Article II, the following members of the mission received the Order of the *"Queen Marie Cross"*, 2nd class, for *"outstanding zeal and devotion with which they contributed to the good care of the wounded in 1917"*:

- Majors: Kirkpatrick D. William, Smith Penn Richard;

[19] *Ibid*, p. 330.
[20] *Ibid*, p. 375.
[21] *Monitorul Oastei,* no. 49 of 8 March 1918, pp. 954-955.

- Captains: Mc. Carthy J. Daniel, Rulison R. H., Le Master B.E., Massenburg George, Backman W. George;
- Lieutenants: Kucera J. William, Hird F. Emerson, Davidson Morris, Guca D. George, Gruener Joseph, Topping D. Harper, Mills A. James;
- Seargeant Day H. Wiltrid;
- Mister Twose George;
- Head Sister of Charity Patterson Florence.

By the same decree, Article III, it was conferred the Order of the *"Queen Marie Cross"*, 3rd class, to the following sisters of charity from the *American Red Cross* mission: Gosling M. Beatrice, Torrance C. Rachel, Brownell Mary A., Olmstead Katherine, Foerster Alma, Mc Intire Mary, Gilborne Alice, Rowland H. Adeline, Miors Linda, Donald B.J.

Colonel Anderson, head of the American medical mission, would be decorated by *High Decree 829 of 9 April 1918* with the Order of the *"Queen Marie Cross"*, 2nd class, for the *"generous work and exceptional dedication for feeding the population in need, orphans and various hospitals in 1917-1918"*[22]. Also, by *High Decree no. 830 of 9 April 1918*, the following persons in the US military mission were decorated: Lieutenant Colonel Yates E. H., the head of the missions, with the Order of the *"Romanian Star"* with spades, in the rank of officer, Captain Marinovitch N. with the Order of the *"Romanian Star with spades, in the rank of knight"*, Lieutenant Rotte Edward with the Order of the *"Romanian Star"* with spades, in the rank of knight.

The separation from those who brought an important contribution to improving the conditions in hospitals, orphanages and social canteens was painful. The Queen wrote: *"Amongst the many who came to take leave was also my friend Anderson. He is to be swept away with the rest, that staunch upholder of my ideals, that kind of man who from the first hour of his arrival had become the most faithful of my subjects, working for me and through me, he too a fighter who understood honour in the same way I did"*[23].

The dramatic circumstances were followed by a beneficial context for Romania, which led to the unification of the Romanian provinces with the mother country in 1918. Later, Queen Marie would always remember with gratitude the help of the allies[24]. The close relationship Queen Marie had with some of the members of these missions had an important role and the work of the *American Red Cross* in the area of the Moldova front, from mid-1917 to March 1918, contributed to the further development of the relations between Romania and the United States.

English version by
Iulia NĂSTASIE

[22] *Monitorul Oastei,* no. 78 of 28 April 1918, p. 1328.
[23] Regina Maria, *op. cit.*, p. 456.
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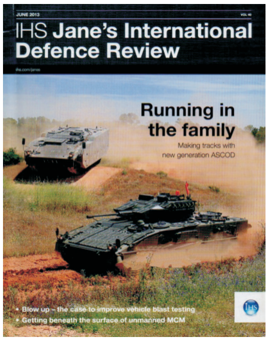

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Cover 3: *NATO naval exercise "Brilliant Mariner" of the Maritime Component of NATO's Response Force (NRF), 26 September - 5 October 2013. Photo: www.nato.int*
Cover 4: *Naval Troops marching. Photo: Eugen Mihai, www.mapn.ro*

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