

HUMAN RESOURCES MANAGEMENT EDUCATION - FROM OPERATIONAL CONCEPTUALIZATION TO THE MILITARY SYSTEM'S TRANSFORMATION

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***Abstract:** The strategic environment underwent significant alterations having to do with the nature and typology of risks, both globally and regionally. Therefore, military policies and strategies have altered significantly, that is, passing from risk-based defense planning to capability-based defense planning. This calls for the development of a robust modeling and simulation architecture of the military systems for educational and training purposes in order to achieve short-, medium-, and long-term capabilities. The accomplishment of an education and training architecture at a joint and inter-agency level permits the analysis and confirmation of solutions for functional fields.*

***Keywords:** symmetrical and asymmetrical war; threats, non-state actors, military education and training, new concepts development*

After the end of the Cold War, the disappearance of the bipolar system resulted in the need to transform the military system in the sense of developing new capabilities to maintain the military actions' degree of success. The 90's allowed for the introduction of new operational concepts and initiation of a deep process of restructuring the military systems of NATO and former Warsaw Pact, which was later acknowledged as a Revolution of Military Affairs (RMA). This process was determined by three main factors: the dynamics of the strategic environment, the

technological progress, and the increasing complexity of the conflict and military actions.

At the end of the 90's and after the 9/11 events, the strategic environment underwent significant alterations having to do with the nature and typology of risks, both globally and regionally. Therefore, military policies and strategies have altered significantly, that is, passing from risk-based defense planning to capability-based defense planning. In other words, overcoming a wide range of risks and atypical threats called for a modular military system, which was both agile (able to perform

various missions in non-conventional combat environments) and flexible (able to change its operational structure according to enemy types).

At the same time, technological progress influenced organizational dynamics, including the military ones. Fast developments in communications, regional and global economic strategies and media led to the need to interconnect worldwide. From the military organization's point of view, technological progress, trends in global dynamics and crises variety (including natural disasters and inter-ethnic conflicts) resulted in a fast process of transformation. Thus, the military organization adapted to what experts called *informational revolution*. In this context, political and military strategists and decision-makers admitted the necessity to develop, analyze, confirm, and implement new operational concepts such as Net-Centric Warfare (NCW).

NCW is an RMA specific concept stemming from the fundamental changes occurred in contemporary western societies, particularly in the economic, technological, and informational fields, for instance: variations in the network based platform type C4, differences between the independent vision (action) and the one specific to a complex dynamic system in permanent adaptation, and the increasing importance of strategic options for adaptation and survival within changing systems [1]. NCW is based on integrating information collecting and processing systems (sensors), command and control systems, and weaponry systems (combat platforms) into real and virtual networks. This type of war

ensures fast leadership cycles, so that the discrepancy between information and hitting is reduced to a maximum, and reaction is therefore instant. Consequently, NCW is a modern type of war, which involves C4I2SR systems organized in a central network, a sensors network, and a combat network, which use information technology, high-tech weaponry systems, and outstanding technical capabilities [2].

The NCW concept has been criticized by the fans of another new concept specific to contemporary military sciences, that is, *the 5th generation war*. This type of conflict, first examined in the 1999 article "The Changing Face of War: Into the Fourth Generation"[3], displays features such as blurring the lines between the political, the military, and the civilian, and involves elements such as: high complexity and duration; terrorism; highly decentralized transnational base; direct attack upon the enemy's culture; complex psychological war by media manipulation; the use of every type of available pressure (political, economic, social, and military); the implication of every network's actor in a low intensity conflict. This concept was criticized in the sense that it was considered as simple insurgency, and the analysis pattern of generation based wars was regarded as inefficient in the identification of occurring changes [4].

Currently, one may talk about *the 5th generation war*, which puts into perspective the aspects of the previous generation. The 5th generation war is exclusively a war against non-state actors [5]. In this type of war,

the center of gravity is no longer a great leader of the enemy who can be killed, nor is it an army that can be destroyed. For instance, whereas the Islamist radical organizations are fragmented, they become more and more dangerous, because it is not their combat capacity that disappears, but their mass and center of gravity that can be hit. The 5th generation war involves spontaneous and anonymous attacks by terrorists against random targets (civilians and military personnel) in order to generate confusion and fear [6]. This concept is not yet fully developed, but it is obvious that it is a product of the new technologies, i.e., of the present RMA stage.

Actually, both the 4th and the 5th generation warfare are *dissymmetrical and asymmetrical wars*. On the one hand, there are high-tech powers, and on the other hand there are the antinomy entities that aim for the latest technologies, as well as the preservation of conservative or retrograde attitudes [7]. Theoretically, *dissymmetrical wars* refer to two completely different forces, disproportionate and incompatible, when only one can attack the other (or when neither can act against each other) [8]. On the other hand, *asymmetrical wars* involve two completely different forces that act efficiently against each other [9].

The aspects of dissymmetry and asymmetry are often reduced to terrorist wars and the war against terrorism. The world's entire conflict situation – military or non-military – unfolds within this spectrum, in which the three dimensions overlap

sometimes according to some strict rules applied ingeniously or chaotically. Somewhere between the preciseness of rules established from the first wars, and the lack of preciseness and predictability of fusions, evolutions, and evolutions lies the whole art of confrontation, as well as crisis management [10].

It is, therefore, natural, that the high degree of complexity of the military conflict determines major requirements regarding the military capabilities' transformation. Political, social, or economic crises have directly impacted upon the occurrence of regional crises that required the use of the military tools. The "conventional" conflict from the Gulf of Persia at the beginning of the 90's was already perceived as an atypical one for the year 2000. At the same time, the conflict socialization (the Balkan and the former Soviet Union crises) and the emergence of trans-national risks and threats have resulted in the need to elaborate new operational concepts and to develop new capabilities at joint or inter-agency level. In order to identify the capabilities required by a certain set of missions and objectives, the military force's development process is based on a joint system of capability development and integration. This encompasses several stages, starting from the strategic documents level and ending at the documents giving a thorough definition of the required capabilities. The process of concept development and experimentation depends directly upon the joint system of capability development and integration by means of the two main approaches: concept development

and experimentation.

The defense strategic or planning guidelines aim to define the short-, medium-, and long-term objectives, as well as to identify the operational concepts that strengthen the military system with regard to certain missions pertaining to the successful use in military actions. After the definition, analysis and confirmation of operational concepts, the functional concepts and integrated architecture are delineated. This stage is necessary in order to establish, in an integrated and formal framework, the military organization's subsystems' responsibilities on functional fields. Every operational concept is subjected to an analysis process concerning its relevance and efficiency. The analysis implies the determination of the capabilities related to each operation concept on short-, medium-, and long-term. These are then changes into functional requirements, and lead to the initiation of a deep process of identifying solutions for each functional field. Both the functional solutions and concepts determine the elaboration of documents regarding the development of military capabilities, and of those related to the alterations in implementation fields (doctrine, organizational structure, education and training, equipment, leadership, personnel, and infrastructure).

Permanent experimentation is the balancing factor between the deductive character of concept development and the inductive character of prototype development. This calls for the development of a robust modeling and simulation architecture of the military systems

for educational and training purposes in order to achieve short-, medium-, and long-term capabilities. Moreover, experimentation must take into consideration the new technological progress in order to identify and develop procurement programs that allow for endowing the military structures with efficient equipment. The accomplishment of an education and training architecture at a joint and inter-agency level permits the analysis and confirmation of solutions for functional fields. Also, applying new technologies allows ensuring a high rate of success in military actions. Structured mainly on modeling and simulation, permanent experimentation implies building operational models that need confirmation and empirical arbitration in order to determine the efficiency of the new military capabilities. Real, virtual, or constructive simulation allows repetitive and low-cost training under the circumstances of the integrated application of new techniques, tactics, and procedures.

In the context generated by the Euro-Atlantic organization membership, antiterrorist operations, multinational actions unfolded in special conditions (desert, extreme temperatures, jungle, populated areas with various degrees of economic-social development or cultural differences) will prevail in the wider context of the potential confrontations faced by Romania's Armed Forces in the near future.

Starting from the premise that future military conflicts, regardless of their nature – *self-defense, alliance, or coalition wars* – will be characterized by military forces downsizing,

forces' rapid deployment to decision points, joint and multinational operations, rapid reaction, we consider that Romanian Armed Forces' mission accomplishment depends on an appropriate approach to their endowment, according to the requirements imposed by the modern warfare and action types.

Naturally, the endowment requirements vary according to the confrontation envisaged. Thus, in the case of symmetrical conformation, the endowment strategy must confer the forces capacities of tri-dimensional, dynamic, pulsating, non-linear, multidirectional, highly automated, and digitized action, at least at the level of basic cell. During asymmetrical conformations, the characteristics required by the crisis situation, as well as the stability and support operations must offer optimal conditions to create operational points and structure downsizing.

To conclude, we express our belief that the transformation process is a perpetual one. In this sense, the military system must develop methods to allow for its self-assessment, as well as for the assessment of its systems that define the required military capabilities. At the same time, the process must validate capabilities by considering the solutions according to implementation fields (doctrine, organizational structure, education and training, equipment, leadership, personnel, and infrastructure), and ensure the endowment with equipment and technology needed to secure mission accomplishment.

By extrapolation and with strict application to the military educational system, mention should be made that

practice in commanding military structures is based mainly on the previous experience in education, when it comes to founding military education and training. I should reiterate that the curriculum has been revised for every stage of military education – graduate, postgraduate, master and PhD programs, as well as for every type of course we provide in order to align the educational approaches with our beneficiaries' (the services and the Major Staff) needs and expectations. More precisely, we are talking about the increasing practical character of education and the focus on developing the skills and abilities which officers should have from the battalion level upwards. Also, one should note that the teaching activity efficiency has been envisaged, so that the teaching staff are better prepared and closer placed to the beneficiaries' needs, that is, the realities of the modern battle field.

However, in no form of education and in no college is the graduate – the end result of the process – prepared to perform every role the career will entail in the future. Any educational institution provides a general framework, and implements and algorithm which the graduate must be able to follow.

Our university has a graduate profile appropriate only for the military educational establishments and revised on a regular basis. In other words, we establish what he/she needs to know, to do, and to be. Hence, the curriculum and the syllabus are developed. It is true that the educational process unfolded here offers models and exercises. No

one should expect that a graduate is able to do and to know everything from the very beginning. Academic education must be followed by the graduates' on-the-job training, which must materialize the general academic framework. The graduate will perform some tasks when commanding a battalion, and totally different tasks in a division or a service major staff. Our educational process is based on practice and experimentation, conducted by professional teaching staff, but no one should expect that a graduate must be able to integrally do any job. As a result, the graduates' commanders and superiors ought to continue their specific training, in accordance with the positions they fill.

To conclude, we support quality, which should be a constant dimension of our activity, which refers both to education, and military training. These are the elements we have in mind in order to achieve NATO interoperability, which is one of the pre-requisites of Romanian Armed Forces' mission accomplishment.

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