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ADAPTING TACTICAL MILITARY STRUCTURES TO THE CURRENT AND FUTURE OPERATIONAL ENVIRONMENTS

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Abstract: *Using the lessons learned from recent military operations such as Operation Inherent Resolve (OIR) from Syria and Iraq, we proposed to investigate the need for tactical military units to adapt operationally to grapple with the most common requirements specific to current operational environments, but also for those that can be foreseen in the future. In this regard, by identifying the best practices in the field that can be met at the level of some important armies, such as USA and UK, we will try to determine a common denominator of most important principles whose application may facilitate both operational and organizational adaptation necessary for tactical military units to perform missions and tasks in the most unknown future operational environments.*

Keywords: operational environment, operational adaptation, COE, FOE, WFF

1. Visualization of current and future operational environments

To begin with, starting from the concept of the operational environment consisting of a *"mixture of conditions, circumstances and influences that affect the commitment of capabilities and decision-making by the commander"* [1], we postulate that understanding it nowadays implies a more integrated approach, including the physical areas and factors (cosmic space included), the information environment (with cyberspace), all of which include the attributes of own forces, adversary or other audiences of interest, as well as the relationships that can be established between them [2].

Therefore, a first condition regarding efficient actions in the operational environments consists in the estimation of the significant characteristics, implying their visualization for different time horizons. The basic idea is to understand the Current Operational Environment (COE) and, based on the factors and main trends of the full spectrum of operations (FSO), to be able to predict the significant characteristics of the Future Operational Environment (FOE).

Against this backdrop, among the most important factors that can influence the physiognomy of COE / FOE, we mention: climate change, scarcity of resources, technological development, type of threats, impact of indigenous people on the operation, urbanization of military actions [3]. Based on these factors, some estimated FOE characteristics include [4]:

- the opponent's habit of correlating conventional techniques, tactics and procedures (TTP) with unconventional TTPs in relation to the result of the actions taken;
- the tendency of the opponents to particularly engage the local population, state institutions and critical infrastructure;

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- conventional employment takes place only if the opponent / opponents have a fighting power equal to own forces;
- the preponderance of the forces to adapt their combat power by adjusting the war fighting functions (WFF) in relation to the requirements of the operational environments in order to direct it to the decisive place and in the decisive moment;
- the use of modular military tactical structures, especially at battalion level, to carry out combat actions in remote Joint Operational Area (JOA) (involves the ability to strategic / operative deployment and tactical mobility);
- the preponderance of the military forces to carry out FSO in extreme conditions;
- the use of Information Operations (IO) in order to model the audiences of interest within the JOA;
- the use of Artificial Intelligence (AI) to increase the combat power of military structures at command level, Headquarters (HQ), combat forces (CBT), combat support forces (CS), and Combat Service Support (CSS);
- the interconnectedness of all fields of operational environments (land, sea, air, information and cybernetics) to support the operations carried out by tactical military structures in different JOAs;
- the amplified employment of operations in cyber, urban or global common goods environments.

Consequently, such operational environments, estimated as volatile, uncertain, complex and ambiguous (VUCA), imply a holistic approach where the capabilities of tactical military structures should be augmented with those of the combined spectrum: joint, interagency, intergovernmental and multinational (JIIM) [5]. Such an approach of the COE / FOE can be supported starting from the operational adaptation of the tactical military structures, which also implies a reconfiguration of the specific organizational structures.

2. The US model of adapting tactical military structures

For the purposes of this study, there are a number of armies within the North Atlantic Treaty Organization (NATO) that can be analyzed as examples of good practice, as they have taken concrete steps to adapt military structures to COE / FOE requirements. Among the most important are the army of the United States of America (USA) and that of the United Kingdom (UK), which started operational adaptation with the WFF adjustment.

Therefore, according to the doctrine of the US military, the WFF that generates the fighting power, and the combat power respectively, are highlighted in the table below. If the first six are already formalized, the last one, engagement, is still pending approval.

Table 1. Warfighting functions – US doctrine [6]

WFF	Content	
C2 (mission command)	tasks and systems that	develop and integrate those activities enabling a commander to balance the art of command and the science of control in order to integrate the other warfighting functions
movement and maneuver		allow movement / employment of forces to achieve a position of advantage over the enemy
intelligence		facilitate understanding the enemy and all the other significant aspects of the operational environment
fires		provide collective and coordinated use of indirect fires, air and missile defense, and joint fires through the targeting process
logistics		provide service support to ensure freedom of movement/maintenance of the operational capability

protection		preserve the force so the commander can apply maximum combat power to accomplish the mission
engagement		ensures the influence of the behavior of local people, security forces and local / regional government entities [7], as well as of other audiences of interest

By analyzing the combat functions in Table 1, we can notice that the main mutations made by the US land forces at the level of combat capability / power, in the sense of operational adaptation, are transposed at the level of C2, respectively engagement.

By applying C2 during the operation process in the form of mission control provides a maximum reduction of control, because it is seen as feedback. In this regard, by promoting initiative and freedom of action, mission control provides support to subordinate leaders in making adjustment decisions in the most unfamiliar action contexts. In practice, the COE / FOE approach places mission control on as essential position, as it *"encourages disciplined initiative through a clear intention of the commander and by providing sufficient direction to integrate and synchronize the force at the right place and time"* [8].

In support of the COE / FOE approach, and in particular, in order to *facilitate "liaison with the partners of the joint action to maximize operational adaptation"* [9], the US military has increased combat capability /power, with an additional combat function, namely engagement. As an element of fighting power, engagement allows [10]:

- evaluating, modeling the operational environment and discouraging hostile audiences;
- understanding the human nature of the operational environment and identifying the resources needed to reach the desired end state;
- collaboration with and through indigenous peoples in order to establish the framework conducive to the successful development of joint action;
- coagulation of land forces with special operations forces in order to achieve a balanced military structure necessary to facilitate the operation process.

In the sense of operational adaptation, the exercise of engagement as a combat function, has determined the need to train / develop the cultural capability of the military personnel, regardless of rank or function, both through pre-deployment training and especially using lifelong education, throughout the development of one's career.

3. The UK model of adapting tactical military structures

Another example of best practice for operational adaptation to COE / FOE requirements is that of the UK military. The basis for the operational adaptation of military structures is to promote integrated action in addressing operational environments, representing *"the application of a whole range of lethal and non-lethal capabilities to change and maintain the understanding and behavior of audiences so as to achieve a positive outcome"* [11].

In this sense, influencing audiences, as an essential requirement in addressing operational environments, can be achieved by applying combat power through WFF or tactical functions. Table 2 briefly describes WFF according to UK doctrine.

Table 2. Tactical functions - UK doctrine [12]

WFF	Contents	Objective
command	authority of appointed individuals and the ways and means by which authority is exercised; facilitates the other tactical functions by balancing, supporting and directing them within joint actions; *also applicable as mission command*	**establish and maintain direction of operation**
intelligence	includes the activities of the commander, general staff and the collection means that generate intelligence products; has the most significant contribution in understanding audiences, actors, adversary, enemy and operational environments	
manoeuvre	physical movement / positioning of forces and integration of fire to organic means, so as to achieve a position of advantage in respect to the enemy ; also applicable as *manoeuvrist approach*	**modeling audiences**
fires	the use of fires refers to the use of weapons to create lethal or non-lethal effects on a target; defined as directed / coordinated fires at all command levels by using , fixed wing (FW) or rotary wing (RW) platforms, and artillery platforms	
information activities	includes all the means of deliberately communicating messages to the audience in order to understand / influence them; achieved through psychological operations (PSYOPS), engagement, deception, cyber electromagnetic activity, media operations, etc.	
capacity building	actions taken to improve military, civil, security and infrastructure capability; produces second order effects on the behavior and combat capabilities of the audiences, facilitating and being facilitated by information activities; requires a comprehensive approach involving cooperation between British agencies, host nation or local governments	
sustainment	supporting the combat / combat support forces in terms of personnel, logistics, equipment, medical in order to maintain the combat power throughout the operation	**facilitating the operation**
protection	includes physical and information protection activities and measures aimed to ensure freedom of action and maintain the operational effectiveness by preservation of combat power (personnel, equipment, materiel, installations, information)	

Of the eight tactical functions, a significant importance in addressing current and future operational environments lies in the approach of maneuver and mission command, their relationship being the *"intellectual foundation of the UK land forces doctrine"* [13].

The application of the maneuvering approach within the VUCA and JIIM type environments has an *"indirect character, aiming at understanding and engaging the conceptual and moral components of the enemy's combat, as well as physical power"* [14]. Basically, through a set of

lethal and non-lethal actions, the maneuvering approach aims at *"shaping the understanding of the enemy, undermining its will and diminishing its cohesion"* [15]. In other words, the manoeuvrist approach is based on the principle that the decisive engagement of the enemy, involving the destruction of its center of gravity (COG) should be supported by preliminary modeling operations, consisting in undermining morale and confidence in one's own doctrinal principles.

On the other hand, the UK doctrine promotes that in the COE / FOE, the maneuvering approach must be facilitated by mission command. From a UK perspective, mission command is the approach that *"empowers subordinate commanders by promoting initiative, freedom of action and speed of action"* [16]. Focusing on generating the agility and tempo of military actions, mission command emphasizes the achievement of the end state, respecting the commander's intention and using mission orders [17]. Furthermore, according to the UK doctrine, the philosophy of mission command is based on the following principles [18]:

- making timely decisions;
- coherent understanding of the commander's intent;
- assuming responsibility by the commanders of subordinate structures;
- motivating subordinate commanders to achieve the desired end state.

Consequently, if the manoeuvrist approach is required by modeling the operational environment, i.e. understanding and influencing target audiences, mission command is crucial, especially in the execution of the operation, where the VUCA characteristics of operational environments require subordinate leaders to take responsibility and make timely decisions, in accordance with the intent of the commander of the upper echelon.

4. Conclusions

The operational adaptation of tactical military structures should be continuous and aim to generate a response capacity tailored to different contexts. If in the short time horizons it aims to engage the COE, for wider time perspectives it seeks to visualize and approach the FOE. Moreover, operational adaptation also involves the development of specific standards such as the integration of Artificial Intelligence (AI), operational flexibility, leadership agility, the modular character and versatility of forces, strategic / operational deployment and tactical mobility, expeditionary mentality, etc. All of these may be applicable to COE and FOE, as both have been determined to have VUCA characteristics.

Given that, in the short term, these standards cannot be fully achieved, it is advisable to apply the principle of prioritizing, and operational flexibility of the forces should come first, although, over longer terms, it is dependent on AI integration, agility of leaders, versatility of forces, expeditionary mentality, etc.

Therefore, in order to achieve the operational adaptation of tactical military structures, flexibility should aim, in the first phase, to develop an immediate reaction capacity of the forces. Taking as examples the models applied by the US and UK land forces, the operational adaptation approach should be initiated by adapting the combat capability / power, assuming the WFF adjustment. Even more, for the application and direction of the adjusted combat capacity / power, it is necessary to adapt the operation process, with emphasis on planning and execution. If at the level of military decision making process (MDMP) this is imperative, at the level of execution, the main changes should be made especially during the adjustment decisions generated by the changes within the JOA.

References

[1] AAP-6, *NATO Glossary of Terms and Definitions (English and French)*, NATO Standardization Office (NSO), edition 2018, p. 91.

[2] JP 2-01.3, *Joint Intelligence Preparation of the Operational Environment*, May 2014, p. I-2.

[3] Paul Tudorache, *Fundamente teoretice și practice privind dimensiunea interculturală a acțiunii structurilor militare multinaționale*, "Nicolae Bălcescu" Land Forces Academy Publishing House, Sibiu, 2018, pp. 8-12.

[4] HQ Supreme Allied Commander Transformation, *2018 Report: Framework for Future Alliance Operations*, Norfolk, Virginia, 2018, pp. 13-14.

[5] Paul Tudorache, Lucian Ispas. Educating Land Forces' Leaders to Think from JIIM Perspective, *Land Forces Academy Review*, No. 4, 2018, p. 250.

[6] ADRP 3-0, *Operations*, Headquarters Department of the Army, Washington, DC, October 2017, pp. 5-2 – 5-6.

[7] TRADOC Pam 525-8-5, *U.S. Army Functional Concept for Engagement*, February 2014, p. 5.

[8] ADRP 6-0, *Mission Command*, Headquarters, Department of the Army, Washington DC, May 2012, p. 1-4.

[9] TRADOC Pam 525-8-5, *U.S. Army Functional Concept for Engagement*, February 2014, p. 5.

[10] Ibidem.

[11] Army Doctrine Publication (AC 71940), *Land Operations*, Headquarters Field Army, Land Warfare Development Centre, Imber Road, Warminster, 2017, p. 4-1.

[12] Ibidem, pp. 8-4 – 8-10.

[13] Army Doctrine Publication (JDP 0-20), *UK Land Power*, UK's Ministry of Defence, Development, Concepts and Doctrine Centre, Swindon, Wiltshire, 2017, p. 53.

[14] Army Doctrine Publication (AC 71632), *Operations*, UK's Ministry of Defence, Development, Concepts and Doctrine Centre, Swindon, Wiltshire, 2010, p. 5-2.

[15] Army Doctrine Publication (AC 71940), *Land Operations*, Headquarters Field Army, Land Warfare Development Centre, Imber Road, Warminster, 2017, p. 5-1.

[16] Army Doctrine Publication (JDP 0-20), *UK Land Power*, UK's Ministry of Defence, Development, Concepts and Doctrine Centre, Swindon, Wiltshire, 2017, p. 53.

[17] Ibidem.

[18] Joint Doctrine Publication 0-01(JDP 0-01), *UK Defence Doctrine*, UK Ministry of Defence, Development, Concepts and Doctrine Centre, Swindon, Wiltshire, 2014, p. 28.