

## WAR DILEMMAS FROM THE LAND FORCES PERSPECTIVE

*Major-general Daniel POP, Ph.D\**

*“A good plan today is better  
than a perfect plan tomorrow.”*

*George S. Patton*

**Abstract:** *The major challenges in the field of land forces which translate today's commander-theoretician into the sphere of military art, consist in the ways of approaching the "fight tonight" concept. In other words, how does one manage to integrate/organize the capabilities one possesses TODAY to produce and achieve the effects one desires from TOMORROW's technique? The battle space management, in a multi-domain operation as it is required to be one of the future, must go beyond the physical, and material condition and rather manage the electromagnetic dimension which very easily can have serious implications in the terrestrial dimension of the military action having given the technological variation of ground combat platforms. Wargaming should not be seen as a prediction of a plan but should be seen and used as a way to improve capabilities at certain times and in a certain place. If the speed of forces restoration and regeneration is low the risk of failure will be high, but if the societal resilience is lower than the forces that protect it from the risk of failure is at the highest level.*

**Keywords:** *concentration-dispersion, interarms, three-way, multi-domain, beneficiary-producer-researcher.*

The results of research and analysis of the main events generated at the political-military and economic level by the Russian-Ukrainian War accelerate the transformation processes within all areas, including the military instrument. At the same time, the lessons identified in the land domain coming from this conflict, were the basis of the debates organized on various forms and different formats throughout the last almost 3 years, both in the business environment and at the political-military level, all of which revolve around the tasks which reify at the NATO level into the field of modernization, reformation and mobilization of forces, to confront an adversary such as the Russian Federation, that proves to be a high power of adaptation and logistical support of an operation.

---

\* Deputy Chief of Staff of the Romanian Land Forces, email: dan2003cj@yahoo.com.

***What will land warfare look like in the future?***

NATO land forces, due to their organization and equipment, can respond to current challenges, including those generated by climate change or disruptive technologies, maintaining their role as a key enabler, even for other domains of operation whether this is imposed or required, they have also a highlighted role by those effects generated in the long term against threats coming from an enemy or "peer to peer" adversary<sup>1</sup>. Against this background, a highly important role pertains to the partnership between land forces and the defense industry to cater to the Army's needs in terms of modernization and permanent endowment at the cutting edge technology able to leverage between production capacity and maintenance, and, at the same time, to balance between cost and efficiency. Relating these two elements to the level of protection and detection of land platforms as a whole or as components are vital for the projection of forces and the development of future procurement processes, pulling off from the consideration that the danger within the air domain represented by unmanned systems is increasingly cheap to be generated, but more expensive to fight against it, and the effects of them removed through long period due to the "crowding" of costumers at the same producers.

Testing opportunities, generated by multinational training platforms within a professionalized environment, of planning, use, and evaluation premises could offer an undoubted efficiency for the beneficiary-producer-researcher partnership and could represent not only a solution of lessening the time required by technological modernization but also a mitigation of all it is required by the research realm, whereas fostering and promoting new ideas for conducting the war in the land dimension or with impact within it.

Pulling off from lessons identified through the RU-UKR war a nascent conclusion we have, the concentration of combat power at a certain point and time is as important as the rapid dispersal of forces immediately after the tactical mission is accomplished to protect and maintain the combat power of the troops. The challenge is to maintain the optimal balance between concentration and dispersion of forces in order to preserve its combat power and achieve objectives. As a result, the concentration of effects at the expense of the forces concentration emerges as a vector of success as long as within future conflicts the adversary's response could be realized in minutes. In the same vein, we can also talk about the growing role of ECOORD<sup>2</sup> in the command post both in the planning realm and on

---

<sup>1</sup> A peer competitor, as the term is used here, is a state or collection of challengers with the power and motivation to confront [...] on a global scale in a sustained way and to a sufficient level where the ultimate outcome of a conflict is in doubt " - The Emergence of Peer Competitors: A Framework for Analysis, pp. 7-8.

<sup>2</sup> effects coordinator.

the evaluation level of actions among the human, technological, or structural dimension of the adversary.

The integration of numerous sensors, data storage solutions, and dissemination gateways into a single network to create and access the Recognized Ground Picture (RGP) presents a new challenge: where and how are decisions made, and who is responsible for them? Additionally, what role does artificial intelligence play in staff operations and fire management processes? Of course, all this leads to a rationale regarding how much the decision-making process has to gain and how much it has to lose, as a result of this "agglomeration" in the command control system, given that one of the requirements of any commander of the current structures of army is to have a command element footprint as small as possible from both on the ground and electromagnetically.

The desire to speed up the reaction process and exploit the opportunities offered by the modern confrontation environment, task organization, type of equipment, sequence of movement, and entry into battle must be the leaders attribute from the lowest level, providing a decentralization through mission command. Conversely, if in theory this is very well explained, mastered, and addressed, in the real world it is not achieved. The desire for involvement through excessive micro-management is increasing, in the aftermath of the lessons learned from the UKR where the commanders of the operational level and divisions or brigades, no longer move to the front line, but they receive their RGP from the sensors from all five domains. Management mistakes can arise from planning pitfalls or fallacies and a wrong approach to human resources policy by promoting leaders who come more and more from among those with very high tactical level experience, but less and less expertise at the operative and strategic echelons, and their desire for control leads to limitations and constraints for those commanders who can find during the battle, gaps in the adversary's action or inaction to exploit, but with limited initiative, the window of opportunity will instead be exploited by the opponent as a weakness or the time factor will find it obsolete. Planning mistakes are not only specific to military plans these are highly connected to administrative policy plans that shape future force structures.

Perhaps one of the major challenges in the field of land forces, which translates today's theoretical commander into the realm of military art, is that he must address a concept like "fight tonight." In other words, he must integrate/organize the capabilities he possesses TODAY to produce and achieve the effects he desires from TOMORROW's means. The generation and appropriate distribution of structures on the tasks to be executed, about the timeline, space, and possibilities, to obtain maximum efficiency, is that element which could ensure success in the reasoning of the short time

response required by the concept designed by the current security environment of the eastern flank of the Alliance.

A key element in the mobility of ground forces, air defense, regardless of the level of equipment of the structures in this field, highlights the fact that the more air defense capabilities (including C-UAV capabilities), the greater the dispersion of forces and means is no longer such a high necessity. Therefore, both in today's conflicts and in future ones, the means of combat and protection of the forces against the danger from the air domain are part of the main axis of research, experimentation, modernization, and acceleration of the process as appropriate with the permanent adaptation of land platforms to future threats specifics. Thus, the land forces will exploit to the maximum the advantage of unmanned aerial platforms and loitering ammunition (kamikaze drones) in an aggressive concept of dominating the confrontation environment and expanding its depth as well as the peculiar area for shaping operations. The versatility offered by unmanned aerial platforms, from ISR components to kinetic strike or electronic warfare in compliance with cost-effectiveness, make them a decision accelerator and also a combat capability multiplier for the structure that owns them.

When talking about modern confrontations and especially those of the last 20 years, we can only say that the distorted image generated by them, of what war means, shows today its true face more and more harshly and abruptly, and the false impression on the physiognomy of the war of the future. The denial of the linearity of the frontline, of the great number of the forces deployed into the friend-enemy ratio as well as of the amplitude of the effects on third parties, from an economic and social point of view, to which is added equally the reaction, to the effects and collateral damages, of international both governmental and non-governmental organizations, proves how flawed and how far the military theory has distanced itself not merely by reality but also by possibilities of the belligerent states, whatever they may be. The human dimension with the will and motivation to be part of the war phenomenon, alongside the procedures and methods of the Second World War that were kept only in manuals during the Cold War, emerge more and more in the actuality of today's confrontations, both in Ukraine and in Palestine. Trench Warfare, the fight against tanks, military operation in urban terrain<sup>3</sup>, concealment and military deception<sup>4</sup> cannot be considered novel elements, but at most embellished by the means and equipment that give them a faster pace, more technologically advanced techniques, and procedures, but by no means new tactics techniques and

---

<sup>3</sup> MOUT (Military Operations in Urban Terrain or MOUT is a term that the U.S. Army used in the past. MOUT has been replaced by the term Urban Operations or UO.

<sup>4</sup> MILDEC (Military deception is an attempt by a military unit to gain an advantage during warfare by misleading adversary decision makers.

procedures of conducting military actions. As a result, combat reconnaissance (reconnaissance-in-force)<sup>5</sup> against lines up alongside those listed above as an element, not of novelty but of the future and which immediately calls for a countermeasure, not a category of technique, but a redefinition of some tasks for units starting from operational security (OPSEC) and camouflage up to the military deception (MILDEC) plan. Very versatile and mobile structures, but with a very high firepower, detection, and capacity to disseminate data and information simultaneously with missions to engage larger structures over extended spaces, are in the development spotlight of future's land forces on the same already well-known axis of adaptation to the next Warfare environment.

Furthermore, if we talk about the battle space management, germane to multi-domain operation (MDO) as it is supposed to be into the future, we must see beyond the physical and material condition and also consider the management of the electromagnetic dimension, which very easily can have vastly serious implications for the land dimension.

**How the future of the combat arm concept from this out confrontation looks like?**

While the revolution in military affairs implies changes and developing concepts in terms of the accuracy and lethality of fire means, the reality in Ukraine shows us how everything is changing towards a dynamic long run, attrition, and indecisive actions by both parties in conflict.

The large number of sensors makes it very difficult to collect proper data, store it as well as transfer databases or timely data within command control networks for a highly educated decision. Moreover, we can see here a war of sensors and against them. Jamming them, hitting every sensor that can lead to the exposure of intent or maneuver is as important as the forms of electromagnetic concealment that must be combined with physical camouflage. All these together must contribute and support the fire synchronization with the maneuver of structures in the field. These aspects have arisen from the need to mislead the adversary in an era where both the disguised concentration of forces and surprise during military action are

---

<sup>5</sup> Reconnaissance-in-force is a deliberate combat operation designed to discover or test the enemy's strength, dispositions and reactions or to obtain other information (ADRP 3-90). A reconnaissance-in-force is a mission that requires more protection for the scouts due to enemy direct-fire contact that is required to test the enemy's reactions. The intent of a reconnaissance-in-force is to discover a weakness in the enemy's formation to allow a main body to exploit the weakness. This differs from an enemy-focused zone reconnaissance, where the intent is to determine size and location to allow the main body to conduct offensive operations.- *Understanding Reconnaissance Missions Instead of Focusing on Reconnaissance Platforms* by CPT Kyle Hoisington.

increasingly difficult to achieve. Disguise, camouflage, and dispersion in all dimensions is one of the keynotes of future armed conflict.

Thus, the war game has to be rethought and tackled relying on a new mindset able to deal with all aspects that were mentioned. The war game should not be seen as a prediction as appropriate with a plan, but it has to be seen and used as a means of capabilities growth during certain moments. Where we can make progress, we exploit and prioritize, and where we are not successful, we identify risk and determine the level of acceptance for it.

For example, in the understanding of the land forces of the United Kingdom, three prospects for a confrontation in the near or distant future emerge about the concept of interarms: defining and organizing the first echelon so that it can carry out the fight; the MDO approach at the level of the army corps - considered the most appropriate echelon from the integration of all domains point of view to which is added the type, shape and location of future command posts that can be generated; fire and maneuver synchronization with the effects obtained in all other areas. However, in the future interarmed battle, the main effort remains the construction of the logistics system, which must be rethought in the philosophy of dispersing capabilities based on, in compliance with protection vectors, distribution time for stock handling and supply. The combined arms character will be found at least as long as by striking the enemy with one mean and urging it to react, we compel it to unfold its array and make it vulnerable to another mean available.

Giving this advantage both to the structures that defend themselves and to those in offensive actions, we maintain the combat arms structures henceforward to the land forces. One lesson that has been identified in the Ukraine conflict is that the size of the force really does matter, and according to the Western concept, the first fight could produce good results and is valid only if, it does not initially fail into an attrition war because then the ability to support, through subsequent campaigns, is needed. Also, if the recovery speed and the forces regeneration is low or the societal resilience is lower than the forces assigned to protect it, the risk of failure is even greater.

### **Multi-domain integration - unfold new challenges?**

The management of the integration into the "multi-domain" concept in the most effective way can be described as the key to success in a future confrontation with a near-peer adversary. First and foremost, the US closely followed by the UK and other allied states, moved to a fundamental revision of the operational doctrine in order to implement the MDO family of concepts, the connection of sensors peculiar to all domains, in the command and control of all domains (Joint All Domain Command & Control -

JADC2), and the joint all domain operations - JADO. Conversely, the translation of these theoretical concepts into reality is the great dilemma that seeks its solution and not the answer that always comes only from the theoretical side of the military system. Defining them, understanding them correctly, and operationalizing them are the key elements of the coming years. These cross-departmental and cross-services concepts of forces and domains lead to a convergence of the speed and magnitude of effects specific to all of them, which can exhaust the adversary's capabilities even of an equal or relatively equal opponent whereas ensure the success either national or allied forces.

As a result, the arisen question from the land forces perspective, in this war of *networks*, is not what the other domains can do for the success of the missions or the fulfillment of the tasks specific to the land domain, but what the land structures can do for the other domains, for their benefit. Based on the analysis of the Donbas fights and the battle for Kyiv in 2022, the land forces remain the core element around which either the success or failure criteria of a future operation could clot, and the support coming from the other realms converge towards the line of decisive points of the plan that must be affected in order to achieve the objective that can certainly be identified or is materialized in the land realm or by land presence. So, the answer to the above question, translated into reality, certifies the role of a joint army in future conflict and the new multi-domain approach.

The common language regarding the databases, the way of labeling, and the flow of their use, regardless of the domain peculiarity, but with multi-domain valences of exploitation, strictly requires standards at the level of the Alliance so that these data could be properly exploited and understood. A good course of action could be the greater involvement of the private sector and civilian specialists from various related fields during the exercises, through a greater openness of the private sector to the requirements and needs of the military structures in order to quickly identify the needs such as to modernize or update the existing technology.

#### **Accelerating the integration of state-of-the-art technologies.**

The main element of the land forces roadmap is to implement the most relevant cutting-edge technologies. Just as important as setting realistic expectations of these technologies is understanding their true potential in support of land forces and augmenting or supporting each other. The central idea is that electromagnetic dominance and speed of decision are sought as high as possible and as well-grounded as possible, but we remain stuck in old and obsolete concepts related to secrecy and encryption. The most relevant example was based on the theory of not considering ourselves so special anymore, mostly at the tactical and operational levels. The best example comes from Formula 1 where huge amounts of money are

at stake and refined and aggressive technological espionage is the main topic, yet the best way to mask conversations and messages is on commercial mobile technology, just the base of data must be encrypted. As a matter of fact, the funds currently allocated in this regard in mobile and fixed encrypted networks could have another very rewarding destination.

To effectively organize, equip, utilize, and restructure land forces for future warfare, we can establish new structures or repurpose existing research facilities. This process should involve moving from a purely technological focus to a conceptual one that simulates, tests, and integrates the critical aspects necessary for mission success in the land domain.

The greatness of the producer-customer two-term is brought under attention by the fact that almost 40% of the British staff, for example, in Afghanistan belonged to contractors or producers, which was an advantage that shrank the supply chain and also the time to identify operational needs through the permanent presence of research elements and experimentation in the middle of the forces, fact that must be carried on now, as well as in the next period. In this way, manufacturers can minimize "*frontline assumptions*" while staying in touch with the reality and needs of the defense sector. In addition, through this approach, it can be said that expertise is brought on the spot where it is needed, actually in contact with reality. Nowadays, producers can nominate elements of scientific research and experimentation to be in the middle of the conflict, but the national and sovereignty imprint disappears. The best course of action to capitalize on the expertise gained by somebody as an active duty soldier is to be leveraged by the private sector and then as a "*reservist with obligations*" back into the military environment for another period to experience the previous demands of the military system, a so-called zigzag career. Concerning this insight, a distinct note leads to the modification and redefinition of the tasks for the army reserve.

To accelerate the development of military structures, the European defense sector is now focusing on integrating production and research systems with user requirements. This system of systems approach enables customers to express their needs easily, while research teams create suitable solutions and production teams implement them. This method aims to ensure that technological processes are tailored to actual needs and grounded in reality, making it easier to achieve effective outcomes. By following this path, the sector could find innovative solutions, reduce delivery times, and minimize excessive bureaucracy.

Consequently, it will take a long time to switch again from a war waged in Afghanistan against insurgents to the classic warfare peculiar to the one in Ukraine. Each allied state through the exercises program must experience, within the scenarios the level of structure adaptability on the



chain of command from the bottom (crew) up, just as it happened in the case of Russia and Ukraine.

Talking about a future conflict, an important role will be played by all state power elements, not only the military one, and the degree of civil society resilience is equal to the degree of the capacity of recovery of means regardless of the field of manifestation, but with predilection in the land domain. Furthermore, the fact that the future Armed Forces is as strong as the defense industry behind it points out the unappealable need for a strong link between the producer of cutting-edge technology and the customer.

The debates at the level of staff talks with a similar structure within NATO, of those discussed within each scientific event and identified during the joint exercises, dealing with the most optimal ways to translate into reality all concepts that have emerged or to implement approaches already exercised by various partners or allies, in order to maintain an adequate level of interoperability, are decisive points for the success of future military actions. The core of today's executive order is based on reducing red tape at the procurement level because the greatest challenge for today's military leaders is investing, and perhaps tomorrow's, in knowing how to best use what is being acquired today.

In other words, the art of drawing the future into the present of the commanders of today's land structures is one of the few key elements that they have at their disposal today.

