

TRAINING OF THE FORCES FOR CARRYING OUT MILITARY ACTIONS IN OPERATIONAL ENVIRONMENTS CHARACTERIZED BY THE EXISTENCE OF HYBRID THREATS

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ABSTRACT

In the current operational context, the armed forces will be put in a position to carry out military actions in complex, unpredictable and volatile environments, characterized by uncertainty and a high degree of risk. They will face multidimensional threats and will need to demonstrate adaptability and flexibility to meet all challenges. In order to be able to carry out their missions in the context of the existence of more and more hybrid threats, the armed forces must go through a training process that allows them to know the confrontational environment, identify the threats, understand them and use the better ways to counter them, while maintaining operational capability. Armed forces training must be as realistic as possible, based on a comprehensive approach to training and to aim to expose warfighters and decision makers to operational conditions as close as possible to those of the hybrid battlefield.

KEYWORDS: training, hybrid, operations, projection, forces

1. Introduction

Today's confrontational environment has a strong hybrid dimension and is characterized by volatility, uncertainty, complexity and ambiguity. Conventional forces that are to operate in this environment will have major adaptation difficulties, which will visibly affect their ability to successfully carry out their missions, all the more so as the challenges they will have to face are in a continuous transformation. To increase the effectiveness of these forces in future operations and to reduce their exposure to hybrid threats, it is necessary that they go through a specific training process before being inserted into the area of operations. The training must aim both at components

that are intended to increase the capacity to withstand physical and mental effort, but also to increase their ability to adapt to new realities, to increasingly complex situations and unpredictable developments, to accustom the military to think unconventionally and find innovative solutions to different problems. As they will most likely be operating in a gray area where it will be difficult to distinguish between combatants and non-combatants, they need to develop the ability to analyze and understand subjective reality and to report in a creative way to this, in order not to endanger the fulfillment of future missions. Force training must be as complex as possible and ensure the development of individual and collective

skills so that forces can meet the challenges of projecting into the future area of operations and engaging in military action in a highly hybrid environment.

2. Training the Forces to Operate in the Context of the Existence of Hybrid Threats

When a crisis begins to manifest itself and the use of the armed forces to manage it is foreseen, the raising of the combat capacity of the units that are to participate in that operation begins and a coherent plan of preparation and training must be carried out, correlated with plans for deployment to the area of operations and engagement in combat. The goal is to prepare soldiers and commanders to face the challenges of the new confrontation space, and the emphasis must be placed not only on the training and development of basic skills, as fighters, according to the specific rules of conventional war, but also on unconventional training of these forces to enable them to recognize, identify and counter hybrid threats that may arise across the spectrum of operations and in all dimensions of the battlespace.

For the projection of forces and their subsequent employment in a potential hybrid environment to be successful, it is necessary for the forces to prepare for this type of operations and for such an operational environment. The first step in preparing forces is to define the threat and understand it. As a result of this, the essential elements of a training programme, the essential tasks that the armed forces will have to perform and the conditions under which training must take place can be established. Realistic training of forces must be an ongoing concern for leaders. After the militaries and headquarters have completed the main steps that attest the appropriate basic training that will enable them to perform conventional missions under any conditions, they will need to be exposed to the constraints and challenges represented by the hybrid operating environment, where

the adversary is not easy to be identified, he uses unconventional tactics, does not respect or uses international humanitarian law to create or enhance its operational advantages and where actions in the physical environment are duplicated by actions in the informational or cyber environment and where the armed forces do not have the necessary capabilities and training to act with maximum efficiency, needing a comprehensive, interagency approach. Training must be accomplished through complex exercises based on realistic, challenging scenarios that require leaders and warfighters to act unconventionally, demonstrate critical and creative thinking, and discern essential information from the enormous amount of information they are bombarded with.

Given the fact that hybrid warfare is most often carried out in the gray area of the confrontation spectrum, we must start from the idea that the armed forces must be prepared to deal with increasingly complex and challenging situations, for which they have not been prepared properly. That is why the military, both commanders and troops need to develop a new way of looking at things, an unconventional and critical manner of thinking to enable them to identify the type of challenges and operate against the unpredictable. This unconventional thinking allows them to identify threats and understand them, and based on this understanding they will be able to find appropriate solutions for each new and unique situation they face.

Modern military operations are no longer carried out, most of the time, in a strictly national framework. The armed forces will operate within an alliance or coalition and will need to cooperate with other structures outside the armed forces in order to understand and control the confrontational environment. This multinational and interagency or interdepartmental framework is a challenge for the armed forces, which must rely on

standardization and the development of interoperability. In order to prepare the forces to participate in military operations on the national territory or outside the national territory, in a multinational and interagency setting, under the conditions of the existence of hybrid threats, appropriate training is very important.

In preparing forces to participate in operations in hybrid environments, characterized by complexity and unpredictability, there is a need for *“a revolutionary change in how the Army thinks about and conducts operations within the modern operational environment”* (Air Force Doctrine note 1-21, 2021, p. 12). This paradigm shift will allow a creative approach to the training process, based on clear objectives and the development of the capabilities needed by the armed forces.

The training of the forces must be done in a comprehensive and anticipatory manner, enabling them to include in the training program as many aspects characteristic to the future hybrid confrontation environment as possible, to train as much as possible in conditions close to the reality of the battlefield, so as not to leave room for surprise and last-minute improvisation. Also, due to the fact that the training must take place in conditions as close as possible to the real ones, there is a need for the efficient use of material and human resources, especially of the experience gained from participating in exercises and complex operations. An important role in this context is due to multi-level and multi-domain experts and decision-makers (Tudorache et al., 2022) from higher levels who can mentor lower-level leaders and encourage critical thinking and mental agility.

Making the training process as effective as possible requires avoiding templates, incorporating lessons learned from past experiences into training, and updating the mission critical requirements list to reflect the realities of the hybrid battle space. It is important that the entire

preparation process is built in such a way so as to create the conditions for multidimensional and interdepartmental preparation, in which elements specific to the political, economic, informational, etc. fields are included, which enable the understanding of the impact that the other instruments of power can have on the conduct of military operations because *“chances of success in confronting a hybrid enemy are significantly augmented by the use of all power, political, military, informational, economic and legislative instruments and by identifying and exploiting its vulnerabilities”* (Neag, 2018, p. 162).

Force preparation time is often reduced in relation to the complexity of the future engagement environment and operational requirements. In order to obtain the best and fastest results in the field of force training, it is necessary to act in the physical, intellectual and moral fields (Thomas, p. 4), as well as in the field of military art. Fighters must be as physically prepared as possible to face the challenges that involve sustained physical effort. They must also be able to sustain the intellectual and moral effort that can drain the energy of a person who is constantly exposed to this hybrid environment. War tests the physical endurance of the military in the harshest possible way and pushes them, often to the limit of endurance, and this must encourage the training of the military in the field of physical endurance, seen both as an essential condition for coping with the demands of the hybrid combat environment, but also as a precondition to develop intellectual and moral resilience. Fighters must also benefit from a high intellectual capacity, and this is conditioned by a proper initial selection, but also by training and education based on high standards. The moral component is the most difficult to prepare, because the decisions that the military has to make permanently

are very difficult and are often located in the gray area, due to the specifics of hybrid warfare. The real challenge for a military is when they have to make the right decisions from all points of view, under conditions of maximum stress, fatigue and uncertainty, when they have to apply the principles of discrimination and proportionality of response. The tactics, techniques and procedures developed by modern militaries require an adaptive and comprehensive approach to hybrid threats and, at the same time, unprecedented inter-agency cooperation, especially to prevent and counter actions of a hybrid nature carried out on national territory by an enemy whose identity is not known (Efimov, 2019, p. 36) or in the cyber environment by an adversary whose power, size and objectives cannot be identified, which may be an individual, an organization or a state.

Creating the conditions for success in interagency operations requires the application of specific principles for sizing, structuring, organizing, training, and designing force groups and for employing (Ioniță et al., 2017, p. 41) them in shaping and combat operations, to achieve the effects desired by political decision-makers and expected by the Security community and even by public opinion.

The process of preparing and executing force projection in a theater of operations depends on the quality and quantity of logistical support, which must be robust, resilient and responsive, able to withstand the disruptive strategies of the adversary (Air Force Doctrine note 1-21, 2021, p. 11). For force projection to be a success and for them to be able to accomplish their missions, it is not enough for soldiers and commanders to have gone through an extensive and complex training program for the future mission in a hybrid environment and to have made detailed plans for force projection. For the mission to be successful, logistical support adapted to the needs and realities of the battlefield

with a hybrid component is also needed. There is a need for logistics support forces to have the necessary infrastructure, developed logistics capabilities to enable the delivery of the necessary support when needed and also to overcome obstacles that may arise throughout the supply chain, which needs to be protected against both conventional and hybrid threats, which have as their starting point both the physical and the cyber environment.

Hybrid tactics can hardly be countered by conventional means, one cannot counter force with force, or even less cyber operations with force. Instead, militaries at all levels, from strategic-level commanders to troops, must be trained to identify what may represent a threat or hybrid action, to analyze the threat, its manifestation and consequences, and to limit the effects, following then to intervene to put an end to the threat. The military must be prepared to deal with fake news, both from the online environment, from social networks, from the written or spoken press, from televisions or from the circle of friends or acquaintances, to try to confirm the information from several sources and to look for the motivation behind those who disseminate them at first or second hand, to identify the means of propaganda and the agents of propaganda, to counter the information operations, influence, etc.

In any operation, especially in its first phases and in those carried out under the conditions of a hybrid conflict, command and control will be overburdened, due to insufficient information, time pressure, uncertainty in the surrounding environment, the hostile attitude of the population and the pressure exerted by the adversary. Commanders will have to make short-term decisions under conditions of uncertainty and will face new, completely unforeseen situations with hybrid threats for which they have not been prepared and have no solutions. To reduce this pressure, during

the mission preparation phase, during training, commanders must be constantly exposed to challenges, they must be encouraged to think creatively and unconventionally, to show imagination and initiative, but above all adaptability, these things enabling them to overcome the fog of war and demonstrate decision-making superiority over the adversary.

3. The Use of Emerging Technologies in the Process of Training Forces Participating in Military Actions in the Hybrid Environment

The evolution of society has been accelerated recently due to the emergence of new technologies that have penetrated all fields and made the world more and more interconnected and interdependent. The world as we know it is in continuous evolution and is becoming increasingly volatile, fragmented and turbulent, but at the same time *“brings new possibilities, partnerships and conventions followed by new and emerging threats on the other”* (Alenby, 2013). Emerging threats are among the most diverse, being both conventional and hybrid in nature. Armed forces engaged in military operations in different areas of the globe will face ever-increasing challenges that will strain commanders' and warfighters' understanding, adaptability and information-processing capacity, requiring a new way of acting on the battlefield to be able to face the new realities and to survive in a hybrid, volatile, unpredictable, complex and ambiguous environment, such as the new confrontation environment, where the boundary between conventional and unconventional is increasingly thin, and most actions take place below the threshold of conflict, in the gray zone, and actions in the military zone are conditioned by actions and events in other fields, such as economic, political, diplomatic, informational, financial, etc., which means that the desired effects can no

longer be obtained only by means of the military instruments.

In order for the armed forces to be able to face the challenges of the hybrid confrontation environment, it is necessary that their training take into account the fact that *“multi-domain operations are central to the future of warfare”* (Trancart, 2021). Force training needs to be as complex and realistic as possible, but replicating the real combat environment on training grounds is very difficult to achieve and involves the use of impressive resources. A solution to integrate hybrid threats into the training process, in order to properly prepare personnel, could be the use of simulated training environments, virtual reality, which allow a new approach to training, by introducing new training methods to prepare the military units in order to participate in operations in different areas of the globe (Rațiu & Corobană, 2012, p. 25), in complex operational and action contexts with a strong hybrid dimension.

Due to the emergence of emerging technologies on the battlefield, it is becoming increasingly complex and unpredictable, therefore the armed forces must become increasingly flexible and agile and ensure that the military has the necessary skills and competencies to face new challenges, to act autonomously and to make decisions in a short time, under conditions of uncertainty. They will have to accumulate knowledge and develop skills at a very high rate, as the battlefield evolves under the impact of modern technologies (Merwe, 2021). We must also take into account the fact that the hybrid war is not only carried out in the physical environment, where the armed forces violently face each other, using the combat capabilities at their disposal, but also takes place in the virtual environment, which, unlike the physical one, is harder to notice, to monitor, but which makes its effects felt in the physical environment, in a surprising way, against an unsuspecting target

(Thiele & Schmid, 2021, p. 1). To reduce the vulnerability of forces to hybrid events occurring in the virtual environment, they need to understand and use the virtual environment in their training, to increase awareness and control, and to reduce military vulnerabilities against the effects of actions that have their point of origin in the virtual environment.

The virtual environment can be used in the training process of the military as it allows them to replicate the most complex operational environments, include the most important variables and create complex, realistic and challenging scenarios that include the civilian population, non-governmental organizations, organized crime organizations, civil authorities, but also other, state and non-state actors (Özel & İnaltekin, 2017, p. VIII). In the physical training environment, the creation of such a complex and realistic scenario is almost impossible, and the total connection of the soldiers to this scenario is difficult to achieve because the artificial replication of the confrontation environment does not contain the necessary elements to maintain the concentration of the soldiers and produce their separation from the real environment. By using modern means of modeling and simulation, the transposition of the armed forces into a new reality is much easier to achieve, because virtual reality and artificial intelligence allow penetration into the cybernetic environment and create extremely realistic situations and context, which will be perceived as such by the subjects of the training. Modern simulation systems enable the creation of an operational training environment that meets real-world requirements and creates the conditions for achieving desired training outcomes by combining hybrid threats with operational variables in a realistic manner. The hybrid threat must be as credible, inconvenient, and demanding as possible to enable the exercise of all warfighting functions in an integrated manner and train

forces to accomplish all mission critical tasks (TC 7-100.4, 2015, p. VII), it must be as innovative, adaptable and interconnected as possible, use the most advanced and unconventional technologies, capable of producing immediate and visible effects at the level of the forces being trained. The use of virtual training means not only allow for the creation of a complex training environment, but also ensure the replication of the effects of the actions of asymmetric, irregular forces that thus become tangible, real for the trainees, and this keeps their attention and concentration at the highest levels.

To increase the realism of the training of forces to cope with the hybrid confrontation environment, the armed forces must, after the training of basic skills, include in the training program elements of virtual, augmented reality, which become essential to maintain the operational state of the army. The most modern virtual training technologies, used to increase the degree of complexity of training and its realism are the following (www.lockheedmartin.com, 2019):

- Augmented Reality + On-Demand Training;
- Virtual Reality + Multi-Domain Training;
- Mixed Reality + Turn-key Training.

The use of these simulation systems increases the degree of realism of the training, allows increasing the complexity of the training and makes it much more dynamic, through the possibility of introducing new elements into the scenario and integrating new technologies and threats, reduces the time required for training, facilitates the creation of new skills and competencies and, very importantly, it reduces the costs of the training, thus allowing for an increased efficiency of the whole process. Using virtual and augmented reality in the training process, the soldiers and commanders can train in conditions very

close to reality, develop their capabilities and knowledge, learn to fly airplanes, drive combat vehicles, use complex weapons systems, see the real effects of fire and their own actions, make decisions and develop leadership and planning skills, etc. without exposing themselves to any risk, under the shelter of the virtual world. *“By wearing VR goggles, soldiers gain total immersion, which means they almost physically experience another reality in conditions which are completely convincing. ... virtual reality is increasingly setting the direction of how modern armies are developing and provides an excellent complement to the available training materials currently available. By means of this technology this technology, soldiers can feel and experience the challenges of the battlefield and better adapt to the conditions they will find there”* (www.mazerspace.com), they will be able to learn to recognize and understand classic and hybrid threats and train themselves to think and act critically, creatively, under the pressure of time and the changing situation.

4. Conclusion

The current confrontation environment has a strong hybrid component, and to be able to act efficiently and to fulfill their missions, the military must be exposed to this environment from the individual and collective training phase, so as to develop the skills necessary to face all challenges. The training of soldiers who will act in the conditions of the existence of threats of a hybrid nature must begin with individual training, which emphasizes the development of physical and cognitive skills, enables the personalization of the military training and education process and includes new technologies (Merwe, 2021). The effort must be continued to strengthen collective training and to develop command and control skills, establishing training conditions as complex, dynamic and unpredictable as possible, which imitate, as

much as possible, real-life conditions, the real operational environment, which is supplemented by the actions of an enemy (Grigoraş, 2021, p. 43) that is inconvenient, adaptable, flexible, able to use a mix of conventional and hybrid means to achieve his objectives and use all operational variables to his own advantage, with emphasis on the civilian population and its control.

The artificial adversary used to increase the realism of the training, but especially the real adversary, will be forced by the conventional technological and operational superiority of its own forces *“to get out of the traditional mode of warfare and look for a niche capability or an unexpected combination of technologies and tactics to gain an advantage”* (Mattis & Hofman, 2005, p. 233) and use hybrid action techniques, which require a new approach to be countered.

This new threat is characterized by capacity for innovation, adaptability and the ability to act in networks, in small, independent but at the same time interconnected groups. However, this generic threat is in continuous evolution and each conflict will be unique, therefore, in addition to the ability to know and understand the threat, there is a need to develop an unconventional approach, to develop a new way of thinking and acting, and critical thinking is essential both for ordinary fighters and especially for tactical and operational or even strategic level commanders. In the area of operations the adversary using hybrid tactics will constantly try to surprise armed forces, create operational, moral dilemmas for individuals and commanders to reduce their combat capability and disrupt the effectiveness of the chain of command. Adequate training of the military increases their resistance and resilience and creates the conditions for them to recognize the hybrid character of the actions they face and to identify the optimal means of

counteraction, but ensures that they maintain their ability to act independently, even when the connection with the upper echelon has been compromised, ensuring the fulfillment of the commander's intent and concept of action.

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