

MODERN MILITARY OPERATIONS: ADAPTABILITY, A REQUIREMENT FOR LEADERSHIP

OPERAÇÕES MILITARES MODERNAS: ADAPTABILIDADE, UM REQUISITO DE LIDERANÇA

Luís Carlos Gonçalves Rodrigues

ParaInfantry Major

Deputy

Operational Training Department

Command of Land Forces

Oeiras, Portugal

rodrigues.lcg@mail.exercito.pt

Abstract

This research aims to contribute to a better understanding of leaders' adaptability requirements in modern military operations. Thus, the main objective of this research is to identify leaders' adaptability requirements in the face of new demands and to contribute to their development in modern military operations. To do so, we sought to identify the major changes and alterations in military operations and in the operational environment in which they occur. In order to analyse the adaptability of Portuguese military leaders, the approach follows a qualitative methodology, through interviews of military officers who exercised command duties in the theatres of operations of Afghanistan or Kosovo, and a quantitative methodology through a questionnaire adapted by us, but created by Pulakos, et al. (Adaptability in the Workplace: Development of a Taxonomy of Adaptive Performance, 2000). The analysis of the interviews and questionnaires reveals that the dimensions of adaptability offered by Pulakos et al. (2000) are adaptability requirements to face modern military operations (characterized by unpredictability, risk and potential threats) that soldiers are exposed to. The questionnaire results show that: the frequency of exposure to the dimensions of adaptability was low, both for the leaders of the AF and the GNR.

Keywords: Leadership, Military Operations, Adaptability Dimensions

Como citar este artigo: Rodrigues, L., 2015. Modern Military Operations: Adaptability, a requirement for leadership. *Revista de Ciências Militares*, novembro de 2015 III (2), pp. 311-340.
Disponível em: <http://www.iesm.pt/cisdi/index.php/publicacoes/revista-de-ciencias-militares/edicoes>.

Resumo

O presente artigo pretende ser um contributo para um melhor entendimento dos requisitos da adaptabilidade dos líderes às operações militares modernas. Assim, o objetivo principal da investigação é identificar os requisitos de adaptabilidade dos líderes face às novas exigências e contribuir para o seu desenvolvimento em operações militares modernas. Para tal, procurou-se identificar as principais mudanças e alterações nas operações militares e no ambiente operacional onde decorrem. A abordagem segue uma metodologia qualitativa por entrevista a militares que exerceram funções de comando nos teatros de operações do Afeganistão ou do Kosovo e uma quantitativa com recurso ao questionário adaptado por nós mas desenvolvido por Pulakos, et al. (*Adaptability in the Workplace: Development of a Taxonomy of Adaptive Performance*, 2000). A análise das entrevistas e dos questionários indica que as dimensões de adaptabilidade propostas por Pulakos et al. (*Adaptability in the Workplace: Development of a Taxonomy of Adaptive Performance*, 2000) são requisitos de adaptabilidade do líder face às operações militares modernas (caracterizadas pela imprevisibilidade, pelo risco e potenciais ameaças) a que os militares estão expostos. A análise dos resultados dos questionários permite verificar que a frequência de exposição às dimensões de adaptabilidade foi baixa quer para os líderes das Forças Armadas e da GNR.

Palavras-chave: Liderança, Operações Militares, Dimensões de Adaptabilidade.

Introduction

The contemporary operational environment, characterized by modern military operations (MMO), is the result of major changes, such as the emergence of failed states, and is characterized by unpredictability, surprise, uncertainty and constant change. This context poses an added challenge to commanders¹, emphasizing the continuing need to change and adapt their behaviour to the different situations. Adaptation to unexpected or high severity events requires immediate action, the need to solve problems creatively, stress management capacity, adjustment procedures, and is felt at the physical, cultural and interpersonal level. To better exploit opportunities and be effective in achieving objectives, military leaders must understand the changing operational environment and quickly adapt by making changes in plans or by anticipating those changes.

The modernization of the Armed Forces (FFAA) seeks to make the organization more agile, interoperable and projectable, which requires military leaders to possess adaptability capabilities in order to continue to fulfil with effectiveness the different missions entrusted to them. Thus, adaptability takes on a key role in the exercise of leadership in MMO. The

¹ Throughout this article, the term “commander” will be used to refer to “military leader”, as any commander, beyond the legal authority exercised over his subordinates, must have the ability to influence them (US Army, 2012c).

challenges facing the commander of a Force called into action in a given region, include: coping with crisis or emergency situations; coping with their own stress and that of their subordinates; coping with uncertainty and unpredictability, which sometimes requires creative problem solving; coping with different procedures and technologies; coping with cultural differences; and coping with physical and psychological adaptation. These situations are themselves likely to generate stress. Dealing with this diversity of factors involves agility, justifying the inclusion of adaptability as a requirement for leadership.

There is therefore the need to determine whether the FFAA have leaders who can quickly adapt to current and future operations in urban type scenarios of use of force, uncertain, ambiguous and complex like those experienced by the Deployed National Forces (DNF), requiring, for that purpose, that the adaptability requirements for these scenarios be identified, as well as what kind of education, preparation and training should be provided to leaders. The absence of Portuguese studies on adaptability in MMO contributing to a closer reading of the factors military leaders are subject to justifies the relevance of the present research. In addition to the United States of America doctrine and the national doctrine² consulted, some adaptability requirements with implications for the training of military leaders were identified in this study as an added value.

To characterize MMO, and given the scope of subject, the object of study was delimited to non-Article 5 land operations and, more specifically, the theatre of operations (TO) of Afghanistan (AFG), from 2001 onwards, to identify the adaptability requirements of leaders. The object of study was additionally delimited to Portuguese military leaders at the level of intermediate and direct leadership, with special focus on those who performed command roles in NDF.

The main objective of this research is to contribute to the improvement of leaders' adaptability to MMO, in an attempt to identify the adaptability requirements of leaders in tackling the demands of MMO, with special attention given to the processes that may contribute to their development. In a first phase, the major changes and alterations in military operations and in the environment are then identified. In a second phase, the factors underpinning a leader's adaptability in dealing with these alterations and with the changes in the operational environment where military operations are taking place are identified.

We will seek to answer two major questions arising from the objective of this research:

How are modern military operations characterized and what are the new demands placed on leaders?

What are the adaptability requirements of military leaders?

Once these main questions are answered, we will then seek to validate, in the conclusions and recommendations of this article, whether: the features of the modern battlefield, characterized by ambiguity, complexity, uncertainty, unpredictability and ongoing changes

² Fundamental principles by which military forces guide their actions in support of their objectives (US Army, 2012a, p. 2; Portuguese Army, 2005, pp. B-6.).

in the present and future characteristics of the environment represent added challenges to military leaders, emphasizing the ongoing need to change and adapt their behaviour to the operational environment; and whether the adaptability requirements identified by Pulakos et al. (2000), namely, the ability to copewith crisis or emergency situations, to vwith stressful situations, to solve problems creatively, to effectively copewith unpredictability and uncertainty, to keep up to date by learning new technologies, tasks and procedures, and to possessinterpersonal, cultural and physical adaptability, are also identified and flagged as adaptability requirements by Portuguese military leaders in MMO.

In order to answer these questions,we performed a bibliographic and documentary reviewingand conducted questionnaires and interviews of officers with ranks of captain or higher, or equivalent ranks of the FFAA and GNR with experience on thistopic, as they have already exercised command duties in the command structure of the FFAA and the GNR in National Territory (NT) or NDF.

Thus, this paper is structured according to the following points: 1) an approach to the typology of armed conflicts and leadership in MMO; 2) adaptability as a leadership requirement in MMO and characterization of the eight adaptability dimensions defined by Pulakos, et al. (2000); 3) an empirical component entitled contextualized adaptability, where the methodology is presented and the results are discussed. The study concludes with an overview where a general assessment is performed and the questions raised are answered.

1. Modern Military Operations and Leadership

a. Military Operations

Current conflicts present various forms of violence, keeping current the Clausewitz's statement that "...war is an act of violence meant to force our opponent to do our will..." (Clausewitz, s.d., p. 94) because, in spite of huge technological advances, of globalization and of the proliferation of weapons of mass destruction, the dead, the injured, the displaced, deprivation, friction, chaos and *stress* remain. Throughout history, the use of force and, more specifically, the application and use of military force has undergone major changes and adaptations. A unique military culture has emerged within the military establishment, which seeks to adapt to the society in which it operates (Santos, 2012). War implies the use of force, it is a conflict of interests that is solved with bloodshed and with shocking and brutal situations, and this distinction, compared with other conflicts, encompasses the whole of society and becomes a complex phenomenon (Couto, 1988, p. 137), both military and social.

War used to be characterized as a state phenomenon, with clear rules and procedures, through international agreements ratified, in part or in full, by states, where each chose and defined its position regarding a particular conflict. With the fall of the Berlin Wall and the disintegration of the Soviet Union, from the last decade of the twentieth century onwards, major changes took place. The Cold War came to an end and a range of regional unrest

spots, such as the Balkans, appeared and with them the development of multiple forms of radicalism. However, with the symbolism associated with the overthrow of the Berlin Wall, the international agreements governing wars were no longer taken into account, even though those agreements still existed and were in force. From that moment, war no longer occurred exclusively between States, which resulted in military operations being carried out in an uneven world, one made of large qualitative disparities (Telo, 2002) and developing as a social phenomenon (Santos, 2012). The changes in the strategic environment of military operations³ are characterised "...by their complexity, nonlinearity, unpredictability, heterogeneity, mutability and dynamism..." (Garcia F. P., 2008, p. 177). With the emergence of other actors, previously well-defined threats gave way to instability, requiring greater international cooperation and relations between states, international organizations and institutions. International military interventions in defence of the primary values of Western democracy became frequent (Musatti, 2006). However, these interventions have brought other factors of instability, unpredictability, new risks and potential threats, such as the tragic events of September 11, 2001. From that date, terrorism became the latest threat to global security, immediately raising significant concern both in Portugal and in the international community.

The instability created by these new types of threats is characterized by global violence⁴, asymmetry and lack of a clear source, which can come from anywhere, without notice, and where there are no clear and well-defined rules (Telo, 2002). Lieutenant General Vane of the US Army (Vane, 2011, p. 16) states that, in the future, the operational environment will be even more uncertain, more complex and more competitive and that those threats will be hybrid⁵ and will be present across the spectrum of war (Exército Português, 2012, pp. 1-6). These changes have major impact on the operational environment, making it complex, violent, scary, physically and mentally gruelling. Therefore, this permanently changing environment spans the entire spectrum of conflict where current military operations unfold. Currently, national military forces with an international framework operate with forces from other States, with international, governmental, nongovernmental and commercial organizations and institutions, in locations where the probability of conflicts among the population is high. The implementation of military operations throughout the spectrum requires that a force be capable of combining, simultaneously, all kinds of military operations⁶ (Exército Português, 2012).

³ All the forms operations can take (political, psychological and specific techniques), depending on the degree of intensity of use of violence (Couto, 1988, p. 151). The considered range of conflict covers the level of violence ranging from stable peace to total war (Exército Português, 2012, pp. 2-1)

⁴ It can take other forms besides the military, such as political and economic duress (Couto, 1988, p. 147).

⁵ A diverse and dynamic combination of regular, irregular and terrorist forces and/or criminal elements unified to achieve mutual benefits (US Army, 2012b).

⁶ Offensive, defensive, stabilization and civilian support operations.

b. Modern Military Operations

The conduct of military operations by FFAA across the spectrum of conflict requires them to be prepared and to adapt to permanent change with the purpose of achieving a stable peace and to fulfil the objectives set by the policy. Military leaders must possess high adaptability capacity to successfully update their knowledge, techniques and tactics to keep up with alterations in the strategic environment of a TO, such as the one in AFG.

Authors such as Lind (2004) define current military operations, hereafter referred to as modern military operations, as fourth generation wars⁷, characterized by decentralization and initiative, in which states “have lost the monopoly on war”, giving way to conflicts between states and non-states (e.g. al-Qaeda). In this type of operations, military forces operate within the population and therefore one of the keys to success is their ability to adapt, interact and integrate within the population. As mentioned by Lind (2004), the techniques, procedures and tactics used in MMO are not a recent development. The major change in this type of operations is to know who the opponents are, as it is extremely difficult to identify an enemy/opponent⁸, significantly complicating the process of learning which targets are to be destroyed and which must be protected. MMO are also marked by the return to a wide spectrum of cultures, in which states are not the only combatants, and not all parties follow the Geneva Conventions (Lind, 2004) and, as has been the case in AFG, cannot be won even by mightiest armies. As Mao Zedong said, cited in (Pinheiro, s.d.), *“if the enemy’s willingness to fight has been affected, then his military capacity, no matter how powerful, becomes irrelevant.”*

MMO are combats focused on morale, with fire and manoeuvre having little influence, as what is important is the psychological effect of the action, with the purpose of convincing both parties that the cause of MMO is a moral high ground. It is essential to know who is fighting and what they are fighting for (Lind, 2004) and where the threat will resurface in new forms through sectarianism, tribalism and nationalism (Buchanan, 2012) and will be employed to intimidate, combining violence with psychological effects and disseminating, through public opinion, the idea that political power is unable to ensure Security (Ramalho, 2011).

In a complex environment with high levels of *stress* and without clear rules, having troops on the ground is essential if populations are to trust military forces. In this situation, the military and in particular their leaders at the lowest levels will eventually perform tasks that are not exclusively military (e.g. the socio-economic promotion of the population) (Garcia, et al., 2004). Therefore, and to deal with all these situations, their adaptability capacity is essential, be it physical, mental or interpersonal (Garcia F. P., 2008, pp. 181-183).

⁷ The definition of modern wars began with the Peace of Westphalia in 1648 (States gained a monopoly on war): the first-generation of wars was known as line and column war; the second-generation, as fire power war, the third-generation, as manoeuvre war; and the fourth-generation, as lose to win (Lind, 2004).

⁸ Party identified as hostile against which the use of force is authorized (US Army, 2012b)

c. Leadership in modern military operations

Since it is at the lower levels that there is more interaction with the population, and as stated in the doctrine of the Army (Exército Português, 2012, p. 2), military personnel in general, and military leaders in particular, are required to possess more freedom of action, confidence, decision-making capacity, ability to think and act in a flexible and decentralized manner, allowing them to constantly adapt to any developments, with the commander's intent and the success of operations as their beacon. The success or efficiency of organizations and operations begins with the individual and extends to the group, but is highly dependent on both leader and leadership. Despite the definition of leadership having different meanings depending on the study's focus, it is consensual that it is a process of influencing people by giving them a purpose, a direction and motivation while operating to accomplish the mission and improve the organization (US Army, 2012c, pp. 1-1). For many, Leadership can be defined as a process of social influence in which a leader guides the group members towards an objective (Rauch & Behling, 1984) or can be understood as the process of influencing people based on sharing a purpose, background and motivation, thus contributing to the improvement of the organization during a mission (Exército Português, 2012, pp. 3-1). It can also be understood as the ability to motivate others, waiving their own interests for the sake of a collective vision, making significant personal sacrifices far beyond those required by duty and free will (Den Hartog & Koopman, 2011, p. 167).

Leaders play a key role in operations, particularly in MMO, as they see the environment and the organization as a unified system and their art of command allows them to combine analysis and synthesis, creating a new style of reasoning. In addition to commanding the force, they often have to liaise with the upper levels and with other international and local actors at different levels, to manage expectations and consent, to know how to listen, influence and coordinate efforts (Garcia F. P., 2008, p. 180). Depending on the situation, they may take an authoritarian stance should the situation require it, or a stance of aid and support to individuals and groups, so that, if necessary, they can restructure their views about themselves, about groups and about the whole organization (Rosinha, 2012).

d. Preparation and training for Leadership in modern military operations

The changing operational environment requires leaders to not only adapt easily to changes in the operational environment, but also to transfer that ability to adapt to their subordinates. In contexts where lethal danger is a reality (Pereira, 1999), leaders must be prepared to cope with external influences, facing stress, fear during combat, communication with the media, the geopolitical environment and technological evolution (US Army, 2012c, pp. 9-1). To make this possible, and taking into account that leadership is something that is built in the daily relationship between leaders and their subordinates (Rosinha, 2012), a clear investment is needed on education, training and adequate preparation.

The training of military leaders is conducted or may be conducted under three headings: institutional, operational and self-learning (Thomas, 2007, p. 50). The institutional covers

basic training⁹ and lifelong learning. The purpose of basic training is to provide military personnel with the skills and knowledge required to enter the Arms or Services and to exercise their duties. The goal of lifelong learning is to update and enhance basic training. Operational training includes the exercise of duties in Units, Institutions and Bodies (UIB) and provides the experience, tools and knowledge that make leaders more effective and efficient (Ulmer, et al., 2004, p. 46). Self-learning is how military individuals develop their skills and knowledge independently. The training of leaders must be ongoing and permanent, focused on being - attitudes, knowledge - and doing - skills (Shambach, 2004, p. 55). Leadership training during the military career is not separate from the training model for officers in the permanent staff (PS) (Borges, 2011, pp. 16-20).

Since 1992, and with the participation of Portugal in the United Nations Angola Verification Mission (UNAVEM) II (Exército, s.d.), the Army has prepared and trained units of various levels and types to participate in various TO with other International Forces. Preparation and training can vary depending on the mission. Preparation and training begin in NT and extend to the theatre of operations. In TO, these activities aim to impart and/or improve strength at the psychic and physical levels, and provide the technical and tactical knowledge required to accomplish the mission; training and preparation take place in three phases and are complemented by one additional phase, already at the TO. In NT, on the first phase, the Administrative-Logistics preparation is carried out; followed by a second phase of Mission-Oriented Training or Cross-Training, concentrating the various capacities that form the National Contingent (CN) to develop joint training actions, culminating with the final preparation exercise (CFT, 2012a). At this stage, specific and critical tasks are trained for and lectures are held in several areas. The force commander must evaluate the specific operational training requirements. Specifically for the TO of AFG, a harmonization course is provided by the North Atlantic Treaty Organization (NATO) at the Joint Force Training Centre (JFTC) in Poland. Training on NT culminates with preparation for projection. The last stage of preparation and training takes place at the TO, for familiarization purposes, with operational/cross-training with other contingents also taking place (CFT, 2012b).

The preparation and training of leaders for MMO is a significantly comprehensive subject, and must become a fundamental pillar for the development of a leader's skills.

2. Adaptability as a Leadership requirement in Modern Military Operations

The changes in the battlefield have brought along additional challenges and an increase in the pressure both in obtaining short-term results and in improving the effectiveness of leaders. From a psychological perspective, it is necessary to understand these new demands faced by leaders. Facing up to the changes in traditional methods of fulfilling missions and tasks makes it necessary to acquire new skills. Charles Darwin, cited in Ramalho (Ramalho, 2011, p. 7), wrote that "It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is most adaptable to change."

⁹ That which is ministered in Higher Military Studies Institutions (EESPUM)

Adaptability, for Pulakos, et al. (2000), can be defined as the effective response to a change in a situation. In this definition, it is presumed that leaders behave adaptively, that is, that they have the ability to recognize the need for change based on small alterations in context, or on the perception of future changes in the environment, in order to change their behaviour, adjusting it to the surrounding situation.

a. Adaptability as a leadership requirement

If, for soldiers, adaptability can be individual, the same cannot be said for leaders, who must be able to adapt and anticipate transitions (Exército Português, 2012, pp. 2-27) and to develop adaptability capabilities in their subordinates. For this operational adaptation to exist, leaders must be flexible and ensure collaborative planning with decentralized execution, without, however, neglecting the commander's intent (US Army, 2012c, pp. 9-5).

Leaders will then be required to possess the ability to adapt to existing conditions and to respond effectively (opportunity and flexibility) to changes in the operational environment. Adaptability is a quality demonstrated by leaders, reflected in critical thinking, to accept uncertainty and risk, and the ability to adjust more effectively to change while maintaining a permanent evaluation of the situation (Exército Português, 2012, pp. 2-27).

Adaptability having been defined and set as a fundamental requirement of leadership when dealing with changes in environment - and in order to understand its various aspects -, presented below are the dimensions of adaptability proposed by Pulakos, et al. (2000). The main objective of the author of this study is to address this void and contribute to the definition of a model to systematize adaptability in operational contexts.

b. Adaptability Dimensions

Although adaptability may be viewed as a unified concept, research has shown that adaptability is multifaceted and has several different dimensions (Pulakos, et al., 2005). To demonstrate this, Pulakos, et al. (2000) proposed an adaptive performance model applicable to a wide range of occupations. This model has been developed from a content analysis of critical incidents describing effective and ineffective cases of adaptability, many of which were taken from military environments. This content analysis revealed eight adaptability dimensions, which will be analysed in detail in order to verify if they also apply to Portuguese military leaders of the three branches of the FFAA and GNR. These adaptability dimensions are meant to describe the different types of existing and adaptive behaviour, and are as follows:

- Coping with crisis or emergency situations;
- Coping with stressful situations;
- Solving problems creatively;
- Coping effectively with unpredictability and uncertainty;

- Learning new technologies, tasks and procedures;
- Interpersonal Adaptability;
- Cultural Adaptability;
- Physical Adaptability.

(1) Coping with crisis or emergency situations

With regard to crisis or emergency situations, these relate to the way in which leaders adapt and cope with situations where conflict and danger are imminent and may occur at any time, where they are least expected, either on NT or in TO.

(2) *Coping* with stressful situations

Leaders must be prepared to face and adapt to the effects of *stress* and to handle the situations in which it manifests. A stressful situation can manifest because of a threat that can occur at any time and at any point of the spectrum of operations, and can even occur while performing exercises (US Army, 2012c, pp. 9-3). To mitigate this situation, leaders must be prepared, by reading the signs, to be aware of and anticipate the various situations that may occur.

(3) Solving problems creatively

Adapting to new or different dynamics and frequently changing situations requires leaders who can solve unfamiliar problems. The effectiveness of group members in solving the atypical, that which is ill-defined, as well as the complex problems they are faced with on a daily basis, but especially during the performance of missions in complex theaters, means this aspect of adaptive performance requires leaders to train for and discuss complex issues or situations, as well as coping with problems that require new and creative solutions (Pulakos, et al., 2000).

(4) *Coping* effectively with unpredictability and uncertainty

The uncertainty and unpredictability of threats have great impact on leaders (US Army, 2012c, pp. 9-1). Although several authors have studied and written on adaptability in the face of a wide range of situations of unpredictability and uncertainty in their workplaces, unpredictability and uncertainty in TO is both higher and more specific (Pulakos, et al., 2000). These situations of uncertainty and unpredictability can result from several factors, such as: coping with a threat that is not well defined and hides within the populations; coping with forces from other countries and organizations (Dix & Savickas, 1995; Goodman, 1994; Pulakos, et al., 2000). The ease and efficiency with which leaders face uncertainty in general is conceptually different from creativity and effectiveness in addressing new problems. Pulakos, et al. (2000) report that some researchers have demonstrated that if on one hand the creative resolution of performance problems influences problem understanding and resolution (Hoover & Feldhusen, 1990), on the other hand, the building blocks of personality, such as self-esteem, self-efficacy and locus of control have proven to be effective *coping* indicators to deal with uncertainty and changes in situations (Callan,

Terry & Schweitzer, 1994; Pulakos, et al., 2000). To copewith these situations of uncertainty and unpredictability, leaders are expected to remain focused on their responsibility and possess the mental agility to anticipate the constant changes in operational environments (US Army, 2012c, pp. 5-1, 11-5). Thus, despite the dimensions – creative problem-resolution and copingwith unforeseen situations - may be related, they should be treated as separate components of adaptive performance (Pulakos, et al., 2000, p. 613).

(5) Learning new technologies, tasks and procedures

Learning new ways to perform a task or learning a set of skills is another aspect of adaptability that has become truly important as a result of rapid technological advancements and the high importance placed onlifelong learning for organizations (Pulakos, et al., 2000). Developing institutions, organizations and people involves a constant balance ofoperating in the present and building for the future (US Army, 2012c, pp. 11-6). Learning involves a continued process of planning and participation to prepare and provide tools to leaders and their soldiers, so they can anticipate and mitigate the effects of uncertainty, unpredictability and constant change. The ability to learn new tasks, doctrines, technologies, procedures and rules is essential¹⁰.

(6) Interpersonal Adaptability

Interpersonal adaptability has become apparent due to the fluidity of working environments, which increasingly feature team projects (Pulakos, et al., 2000, p. 614). Interpersonal adaptability involves the ability to demonstrate interpersonal flexibility, to adjust interpersonal style in order to achieve goals, to adapt interpersonal behaviours in order to work effectively with new teams and with other military and civilian organizations. Flexibility, as a form of predicting the needs of subordinates, is also a requirement (Bowen & Waldman, 1999; Pulakos, et al, 2000, p 614).

(7) Cultural Adaptability

Another aspect of adaptive performance is related to cultural adaptability requirements within the organization (Chao, et al, 1990, p 742; Pulakos, et al, 2000, p 614), to new countries and to other military organizations (Black, 1990). Globalization, the open labour market and the ease with which workers change jobs have significantly increased the ability to perform effectively in different cultures and environments (Pulakos & Ilgen, 1999). To mitigate these cultural differences, it is necessary to learn the language (in its entirety or the acronyms, jargon and slang unique to the organization or culture), the objectives and values (formal rules and principles, formal objectives and the values which guidebehaviour), the history (traditions, customs, myths and rituals that transmit cultural knowledge) and the policies (formal and informal relationships and power structures within the culture). But it is not enough to learn about a new culture or environment. The key to success in this type of

¹⁰ Such as the course to raise leaders' awareness of improvised explosive devices, taught during the missions in AFG by US military personnel (Improvised explosive devices course - Awareness Train-the-Trainer Course (C-IED)).

adaptive performance involves successful integration into the new culture or environment, understanding it, not completely, but behaving in accordance with it, accepting its customs, values, rules and structures.

(8) Physical Adaptability

The last aspect of adaptive performance involves adaptability to various physical factors such as heat, noise, uncomfortable climates and environmental difficulties (Edwards & Morrison, 1994; Pulakos, et al, 2000). Adapting quickly and effectively to different physical conditions is a requirement in many functions and jobs, especially jobs which require constant travel from one place to another. This aspect of adaptive performance has become especially crucial to the military, especially in missions abroad.

The multiple conflicts, and the consequent turnover of military personnel in various TO, require moving from country to country and adapting to various climates. The key to the success of this adaptive performance is rapid adaptation to the different changes and challenging physical conditions. Like other forces, the US military has developed a physical preparedness program (*Physical Readiness Training program to prepare Soldiers and units for the physical challenges of fulfilling decisive action missions facing a wide range of threats in complex operational environments and with emerging Technologies*) to prepare its military personnel and units in coping with the physical challenges and others which they may encounter (US Army, 2012c).

1. Adaptability in context / Methodology

a. Sample

Interviews were conducted with six Army officers and one GNR officer who have performed module/company/battalion command duties in the TO of AFG and/or Kosovo (KOS).

The convenience sample used in the questionnaire comprises a total of 122 officers with ranks lower or equal to captain or equivalent position. Participation in the study was voluntary. All officers in the sample belong to the three branches of the FFAA and GNR. Of these, 93.4% are male and 6.6% are female.

The vast majority of the sample belong to the 35-45 age bracket (57.4%), followed by the 25-35 age bracket (26.2%), the 45-55 age bracket (15.6%) and finally, a group over 55 years old (0.8%), with only one participant.

Of the 122 officers in the sample, 54 (44.3%) have never been on mission, 29 (23.8%) were on mission on one occasion and 39 (32%) have been on missions abroad more than once. Given that more than 50% were on missions abroad, it was deemed necessary to assess what the TO involved were. It was found that at least 10 (8.2%) were in AFG, 6 (4.9%) in KOS, 3 (2.5%) in Bosnia, 6 (4.9%) in Timor and 18 (14.8%) other TO.

Of the TO where Portugal has or has had NDF, only the AFG TO was considered for this research as presenting a high threat level. For the remaining TO, the threat level was considered medium; and on NT the threat level was considered to be low or zero.

Of the respondents, 10 (8.2%) have been on mission in the TO of AFG, 58 (47.5%) have been in TO with a threat level considered medium and 54 (44.3%) have never participated in missions abroad, therefore the threat level for these officers is considered to be low or zero.

b. Procedure

Interviews were conducted with six officers from the Army and GNR who served as commanders in the TO of AFG or KOS, integrated in a DNF. These officers were asked to provide answers in a semi-structured interview. The interviews were deployed to help identify the characteristics that leaders should possess and what training would develop their adaptability and ability to deal with MMO. Although MMO have been delimited to the AFG scenario, so it could be compared with other TO, interviews were conducted with leaders who were present in the KOS and AFG TO. It is noteworthy that three of the AFG respondents performed command duties in the Quick Reaction Force (QRF) in AFG and the fourth respondent was the commander of the first GNR module, also in AFG.

The questionnaire was deployed to help answer some issues raised by the topic. To this end, a test was conducted with the eight dimensions of performance adaptability proposed in the previous chapter. The questionnaire developed by Pulakos, et al. (2000) was adapted and modified to fit our context.

Data collection took place during the month of January, 2013, from a group of IESM officers who have performed command duties in the command structure of the FFAA or in the GNR, in NT or on missions abroad within a NDF.

c. Instruments

The interviews were structured into four questions: the first question relates to the operational environment; the second and third questions ask the respondents to give a description of a positive and a negative situation requiring command and leadership action; the fourth, and last, asks about the preparation and training for the fulfilment of missions.

The questionnaire comprises thirty-nine statements resulting from the challenges that MMO present to leaders, who were asked to score their **degree of importance** compared with other routine tasks performed in their the exercise of their duties. Next, the same thirty-nine statements were presented, this time to be scored as to their **frequency** in MMO. The questions are classified according to level of **importance and frequency** on a scale of one (1) to five (5), considering one (1) as not important and five (5) as extremely important; and for frequency, one (1) represented never and five (5) very often.

4. Presentation and discussion of the results

a. Data collected from Interviews

A review of the literature revealed that MMO occur in different TO and are characterized by the presence of conventional, irregular, friendly and enemy forces. The threat also appears to be hidden and operates within the population –a population which may also perform hostile actions (e.g., subversion, terrorism, sabotage). The content analysis of the interviews in the annexes (Annex A - Table A1 - Interview analysis) shows that the limits of action of forces are not well defined; those limits are not contiguous, as in conventional operations; the operational environment of AFG is complex, uncertain, undefined and unregulated, with the clash of cultural identities always in the foreground; and the conduct of operations employs a large variety of resources¹¹ and there are coordination difficulties, as there are forces from various countries with different languages and cultures operating on the terrain contributing to the same ultimate objective.

Different changes in terminology and concepts were also verified. It is no longer common to say that victory was achieved, rather success or a favourable outcome, and leaders at the lower levels play a very important role, as it is them who, with their “men”, act within the population and, therefore, are the ones who most interact with the population and with the large cultural differences. The uncertainty of the threat is another feature of current military operations. In order to deal with the complexity of the operational environment, subordinate levels must be granted more initiative and flexibility to face the different changes in the environment. Subordinates must also be more prepared to adapt to external influences, such as stress, fear during combat, communication with the media, the geopolitical environment and technological evolution.

Regarding the preparation and training conducted, respondents were unanimous in stating that their training and preparation were the result of basic training and lifelong learning, as well as of the experience acquired in the performance of various duties in UIB, with special emphasis on their duties as commanders of operational subunits, and previous participations in NDF, and self-learning. In general, they are of the opinion that there is no need for achievement or creation of new training courses on leadership. However, they stressed that training should cover, and allow leaders to enhance, among others: the ability to cope with unforeseen situations; the ability to cope with stressful situations and uncertainty; interpersonal adaptability; building trusting relationships; motivation; decentralization; flexibility; and learning to cope with new technologies, tasks and procedures.

It was also found that all respondents stated that leaders should have a high adaptability capacity and, directly or indirectly, eventually broached the eight adaptability dimensions defined by Pulakos, et al. (2000).

¹¹ Military and non-military, particularly actions at the political, economic and psychosocial level to the detriment of military efforts (Visacro, 2010).

b. Data obtained from the questionnaires

(1) Descriptive statistics for the degrees of Importance and Frequency

With regard to the importance of the adaptability dimensions, as can be seen in Table 1, of the eight adaptability dimensions, the one considered less important is *physical adaptability* (3.72) and the most important is *coping with crisis or emergency situations* (4.27). As for the frequency with which the officers dealt with this type of situations, *coping with unexpected situations* and *solving problems creatively* have the lowest value (3.02); however, *interpersonal adaptability* has the highest value (3.39).

Table 1 - Descriptive Importance and Frequency (Frequency (Freq) Importance (Imp))

Dimension	Minimum		Maximum		Average		Standard Deviation	
	Freq	Imp	Freq	Imp	Freq	Imp	Freq	Imp
Interpersonal adaptability	2,40	2,80	4,80	5,00	3,39	4,00	,48	,42
Learning new technologies, tasks and/or procedures	2,00	3,00	4,17	5,00	3,29	3,90	,50	,39
<i>Coping</i> with crisis or emergency situations	1,60	3,40	4,40	5,00	3,14	4,27	,57	,39
<i>Coping</i> with workplace stress	1,60	3,20	4,40	5,00	3,08	4,27	,52	,39
Cultural adaptability	1,00	2,67	4,67	5,00	3,08	3,96	,75	,49
Physical adaptability	1,00	2,00	5,00	5,00	3,05	3,72	,86	,57
<i>Coping</i> with unforeseen situations	1,17	2,67	4,33	5,00	3,02	3,78	,56	,48
Solving problems creatively	1,60	2,60	4,40	5,00	3,02	3,76	,58	,50

Source: Rodrigues (2013)

(2) Differences between importance and frequency

The analysis of the differences between the importance of dealing with each of the eight dimensions and the frequency with which those dimensions occur (Table 2) reveals that there are significant differences in all dimensions ($p < .001$). That is, greater importance is attributed to all dimensions of adaptability, but confrontation with or exposure to these dimensions on a daily basis (frequency) is lower. As there are no statistically significant differences by branch, those tables are not presented.

Table 2 – Compared Averages for paired samples

Dimension	Average	Stadard Deviation	t	Significance Level
Importance of <i>coping</i> with crisis or emergency situations	4,27	,39	21,19	,000
Frequency of <i>coping</i> with crisis or emergency	3,14	,57		
Importance of <i>coping</i> with workplace stress	4,27	,39	22,41	,000
Frequency of <i>coping</i> with workplace stress	3,08	,52		
Importance of solving problems creatively	3,76	,50	15,61	,000
Frequency of solving problems creatively	3,02	,58		
Importance of <i>coping</i> with unforeseen situations	3,78	,48	14,73	,000
Frequency of <i>coping</i> with unforeseen situations	3,02	,56		
Importance of learning new technologies, tasks and/or procedures	3,90	,39	11,96	,000
Frequency of learning new technologies, tasks and/or procedures	3,29	,50		
Importance of <i>coping</i> with physical adaptability	3,72	,57	9,53	,000
Frequency physical adaptability	3,05	,86		
Importance of <i>coping</i> with interpersonal adaptability	4,01	,42	14,24	,000
Frequency interpersonal adaptability	3,39	,48		
Importance of <i>coping</i> with cultural adaptability	3,96	,49	13,64	,000
Frequency cultural adaptability	3,08	,75		

Source: Rodrigues (2013)

(3) Analysis of Importance and Frequency according to threat level

The frequency and importance of each of the eight dimensions of adaptability was analysed according to threatlevel (low or zero, medium and high) (Table 3). As can be seen, with regard to degree of importance, there are statistical differences only in *physical adaptability* between those who were in TO where the threat level was high, and those who were in TO or onNT where the threat was low or zero That is, the threat level determines greater physical adaptability.

It was found that, with regard to the frequency with which commanders deal with the various dimensions, there are differences between the values of those who were in a TO with a present threat, and those who were in a TO where the threat level was low or zero. Specifically, there are statistical differences in the frequency of the *cultural dimension* in theatres of operations where the level of threat is low or zero and in theatres of operations with a high or medium threat level. Thus, as there are differences in the frequency of the *physical dimension and learning new technologies, tasks and/or procedures* between the sample in TO with low or zero threat level compared to those who were in TO with a high threat level. That is, being in TO with greater exposure to threat levels also requires a higher frequency of contact with *cultural and physical requirements, and learning new technologies, tasks and/or procedures*.

Table 3 – ANOVA: Frequency (Freq) and Importance (Imp)

Dimension	Threat level	Average		Standard Deviation		F		Observations	
		Freq	Imp	Freq	Imp	Freq	Imp	Freq	Imp
Cultural adaptability	Low or Zero	2,81	3,90	,76	,51	10,82	1,14	Low or Zero ≠ Medium and High	
	Medium	3,39	4,03	,65	,45				
	High	2,73	3,93	,58	,60				
	Total	3,08	3,96	,75	,49				
<i>Coping</i> with workplace stress	Low or Zero	3,07	4,24	,54	,40	2,44	,92		
	Medium	3,15	4,31	,51	,39				
	High	2,76	4,16	,39	,30				
	Total	3,08	4,27	,52	,39				
Solving problems creatively	Low or Zero	2,94	3,70	,61	,49	2,96	1,11		
	Medium	3,14	3,83	,56	,52				
	High	2,74	3,70	,42	,33				
	Total	3,02	3,76	,58	,50				
<i>Coping</i> with unforeseen situations	Low or Zero	2,97	3,68	,64	,50	1,27	3,30		
	Medium	3,10	3,90	,49	,47				
	High	2,85	3,67	,33	,29				
	Total	3,02	3,78	,56	,48				

Table 3 – ANOVA: Frequency (Freq) and Importance (Imp) (Continuação)

Dimension	Threat level	Average		Standard Deviation		F		Observations	
Physical adaptability	Low or Zero	2,75	3,59	,86	,56	6,64	2,99	Low or Zero ≠ Medium	Low or Zero ≠ High
	Medium	3,32	3,85	,81	,59				
	High	3,10	3,70	,59	,33				
	Total	3,05	3,72	,86	,57				
Learning new technologies, tasks and/or procedures	Low or Zero	3,17	3,89	,49	,37	5,42	,36	Low or Zero ≠ Medium	
	Medium	3,44	3,93	,48	,42				
	High	3,07	3,82	,50	,37				
	Total	3,29	3,90	,50	,39				
Interpersonal adaptability	Low or Zero	3,37	3,97	,42	,42	1,64	,73		
	Medium	3,45	4,05	,52	,43				
	High	3,16	3,92	,56	,46				
	Total	3,39	4,00	,48	,42				
Coping with crisis or emergency situations	Low or Zero	3,06	4,19	,64	,37	3,16	2,85		
	Medium	3,26	4,36	,51	,42				
	High	2,84	4,20	,31	,28				
	Total	3,14	4,27	,57	,39				

Source: Rodrigues (2013)

(4) Relationship between the frequency and importance of adaptability dimensions and number of missions, threat level, month total and age

(a) Correlations for the total sample

From the analysis of Table 4, where the frequency of the eight adaptability dimensions was correlated with the number of missions, TO threat level, month total and age, it can be seen that:

- The officers who participated in more missions were faced more often with the need to adapt culturally ($r = .41$), physically ($r = .43$), learn new technologies, tasks or procedures ($r = .25$) and also had to cope with crisis or emergency situations ($r = .27$) more frequently;
- The officers who were stationed in TO with higher threat levels had to cope with cultural adaptability ($r = .19$) and physical adaptability ($r = .25$) more often;

- The officers who were on mission for a longer period felt the need to copewith cultural (r = .41) and physical (r = .44) adaptability situations most often, as well as learning new technologies, tasks and/or procedures (r = .21) and to adapt to crisis or emergency situations (r = .25);
- Age presents no significant correlation when related to the eight adaptability dimensions.

Table 4 – Correlationsbetween the frequency of the eight adaptability dimensions and number of missions, TO threat level, month total and age

	Frequency cultural adaptability	Frequency of <i>coping</i> with workplace stress	Frequency of solving problems creatively	Frequency of <i>coping</i> with unforeseen situations	Frequency physical adaptability	Frequency of learning new technologies, tasks and/or procedures	Frequency interpersonal adaptability	Frequency of <i>coping</i> with crisis or emergency
Missions number	,41**	,16	,16	,12	,43**	,25**	,13	,27**
Theatre of Operations - Threat Level	,19*	-,07	,03	,03	,25**	,11	-,03	,02
Month Total	,41**	,15	,16	,15	,44**	,21*	,09	,25**
Age	,04	-,01	,03	-,04	-,07	,08	-,01	-,02

Source: Rodrigues (2013)

The correlation between the importance of the eight adaptability dimensions withthe number of missions, the threat level of the theatre of operations, the month total and agereveals that:

- The officers who took part in more missions place the most importance on the need to copewith crisis or emergency situations (r = .25) and physical adaptability (r = .24); the threat level of the TO and the age of the sample do not significantly relate to the eight adaptability dimensions.

The same type of analysis was conducted for a sample divided intoarmsand services. It was found that only the sample originating from the arms,whoparticipated in more

missions, and with greater mission length, gave the most importance to the need to cope with *emergency/crisis situations*.

(b) Correlations in the Navy Branch

For the Navy branch, the frequency and importance of the eight adaptability dimensions was correlated with the number of missions, the threat level of the theatre of operations, the month total and age. It was found that only the sample who was on missions for longer also felt the need to cope with interpersonal adaptability ($r = .42$) more often. Age, threat level and the number of missions of the sample did not present significant correlations when related to the eight adaptability dimensions.

It was found that only the officers with more mission time placed greater importance on physical adaptability ($r = .47$). The number of missions, the threat level of the TO and the age of the sample do not correlate significantly with the eight adaptability dimensions.

(c) Correlations in the Army Branch

In the Army branch, the correlation between the frequency of the eight adaptability dimensions and the number of missions, the threat level of the TO, the month total and age show that:

- The officers who were on missions for longer were more often faced with the need to *adapt culturally* ($r = .43$), *physically* ($r = .44$), *to learn new technologies, procedures or tasks* ($r = .32$) and *to cope with crisis or emergency situations* ($r = .40$);
- The officers who participated in more missions were faced more often with the need to *adapt culturally* ($r = .39$), *physically* ($r = .43$), *to learn new technologies, tasks or procedures* ($r = .29$) and *to cope with crisis or emergency situations* ($r = .38$);
- The threat level and the age of the sample do not present significant correlations with the eight adaptability dimensions.

We have found that the number of missions, the threat level, the month total and the age of the sample do not significantly correlate with the importance of the eight adaptability dimensions.

(d) Correlations in the Air Force Branch

The correlations in the Air Force branch between the frequency of the eight adaptability dimensions with the number of missions, the threat level of the TO, the month total and age show that:

- The officers who took part in more missions were more frequently confronted with the need to *learn new technologies, tasks and/or procedures* ($r = .36$) and *to interpersonally adapt* ($r = .39$);

- The officers who were on missions for more months dealt more frequently with *cultural* ($r = .40$) and *interpersonal* ($r = .37$) adaptability;
- The threat level and the age of the sample do not present a significant correlation when related to the eight adaptability dimensions.

The correlation between the importance of the eight adaptability dimensions with the number of missions, the threat level of the TO, the month total and age shows that:

- The officers who took part in more missions placed the most importance on the need to *cope with crisis or emergency situations* ($r = .40$);
- The older officers placed the most importance on the need to *cope with crisis or emergency situations* ($r = .45$) and to *cope with stressful situations in the workplace* ($r = .44$);
- The threat level and the month total show no significant correlations with the eight adaptability dimensions.

(e) Correlations in the GNR

With regard to the GNR, there were no significant correlations between the frequency of the eight adaptability dimensions to the number of missions, the threat level of the TO, month total and age.

The correlation between the importance of the eight adaptability dimensions and the number of missions, the threat level of the TO, month total and age shows that:

- The officers who have been on missions for longer place the most importance on the need to *cope with crisis or emergency situations* ($r = .76$);
- The older officers place the most importance on the need to *cope with stressful situations in the workplace* ($r = .76$);
- The threat level and the number of missions show no significant correlation with the eight dimensions of adaptability.

(5) Composite scale for adaptability skills

In order to identify the requirements to develop adaptability to MMO, adaptability dimensions were identified that, according to the sample, are more or less important, and that happen more or less frequently. A composite scale was generated with the following designations:

- Unnecessary Dimensions: those dimensions with a value of 1 (one) in the composite range, considered uncommon and unimportant;
- Accessory Dimensions: those dimensions with a value of 2 (two) in the composite range, considered very frequent but unimportant;

- Critical Dimensions: those dimensions with a value of 3 (three) in the composite range, considered not very frequent but very important;
- Core Dimensions: those dimensions with a value of 4 (four) in the composite range, considered very common and very important.

As can be seen in Table 5, according to the data collected from the sample, it was found that, for the skills of the eight dimensions under analysis, depending on the branch of the FFAA or the GNR, all adaptability dimensions were evaluated as **critical and essential**, and none were deemed accessory or unnecessary. It was also found that of all the adaptability dimensions, the one unanimously considered Essential for all branches and for the GNR is *interpersonal adaptability*; and that only the Army considers all dimensions essential.

Table 5 - Summary of the development needs of adaptability to MMO by branch of the FFAA and GNR, Arms and Services and Total sample

		Frequency															
		Coping with crisis or emergency	Coping with workplace stress	Solving problems creatively	Coping with unforeseen situations	Learning new technologies, tasks and/or procedures	Physical adaptability	Interpersonal adaptability	Cultural adaptability	Coping with crisis or emergency	Coping with workplace stress	Solving problems creatively	Coping with unforeseen situations	Learning new technologies, tasks and/or procedures	Physical adaptability	Interpersonal adaptability	Cultural adaptability
Importance	Navy																
	Army																
	Air Force																
	GNR		UNNECESSARY							ACCESSORY							
	Services																
	Arms																
	Total																
	Navy		X	X	X		X	X	X				X		X		
	Army								X	X	X	X	X	X	X	X	X
	Air Force	X	X	X	X	X	X	X							X		
	GNR		X					X	X				X	X	X		
	Services	X	X	X	X		X	X					X		X		
	Arms								X	X			X	X	X	X	X
	Total		X	X	X			X	X				X	X	X		

Source: Rodrigues (2013)

5. Conclusions and recommendations

The overthrow of the Berlin Wall and the disintegration of the Soviet Union contributed to the profound changes in the international scene, with hotspots of regional unrest and the development of multiple radicalisms. To combat them, the international community constituted multinational forces, resulting in military operations developed in an unequal world, with strong qualitative imbalances. On September 11, 2001, with the attack on the twin towers in New York, terrorism became the major global threat, bringing with it profound changes in the way military operations are conducted and performed.

Ongoing military operations on the TO of AFG, known as MMO, are characterized as asymmetric, nonlinear, without proximity of combat fronts, where combatants are integrated and blend in with the population, which they also use as a shield and, if necessary, as a bargaining chip, and where the neutrality status and civil/military distinction either does not exist or cannot be perceived. Threats without a clear origin and which act without rules have violence, terror, innovation and unpredictability as strong points. From the answers to the question *“How are modern military operations characterized and what are the new demands placed on leaders?”*, it is worth highlighting the existence of large cultural differences, physical, coordination, and international cooperation difficulties, instability, complexity, heterogeneity, mutability, dynamism, creativity, initiative and permanent changes in the characteristics of present and future operational environments. On this type of operations, military forces operate, as mentioned, within the population and therefore one of the keys to success is their ability to adapt to the operational environment.

In this highly complex environment and without defined rules, leadership plays a prominent role. In MMO, leaders must be able to understand and anticipate the changes in the operational environment in order to take the advantage, which points to their adaptability capacity. In this regard, this research contributes to the articulation of performance and adaptability requirements of military duties in three major aspects. The first is the intent of providing a conceptual framework to define and understand the performance of adaptability of the various duties of the FFAA and the GNR. The second relates to the fact that, while it is reasonable to assume that adaptability is multi-dimensional, given the range of behaviours associated with it, it is possible to identify the potential dimensions of the performance of adaptability. The last relates to the fact that research provides a suitable research tool in the study conducted by Pulakos, et al. (2000), which allows a diagnosis of the adaptability requirements for the performance of a particular duty, either in the FFAA or the GNR. This becomes important because, depending on the specificity of the TO or of the duty to be performed, different selection measures, or different training and preparation plans can be implemented, according to the adaptability requirements of the mission and the TO.

In the answers to the question *“What are the adaptability requirements of military leaders?”* it was found that, despite the low frequency with which some of the military

leaders of the FFAA and the GNR have dealt with some of the eight adaptability dimensions, they are aware that they may be required to face any of those dimensions at any moment. The dimension on which military leaders place the most importance is adaptability to *cope with crisis or emergency situations*. It was found that there are significant differences between the importance and the frequency of adaptability requirements, which leads to the conclusion that the importance placed on each of the eight adaptability dimensions is not equal to the frequency with which they deal with each dimension. That is, greater importance is indeed placed on these requirements for the performance of their duties; however they are faced less frequently with them.

By analysing the influence of factors according to type of threat, it can be seen that there are differences in the frequency of *physical adaptability* and *learning new technologies and/or procedures* when the threat is low/zero and when the threat is medium, and in the frequency of *cultural adaptability* when the threat is low/zero and when the threat is medium or high. Which leads us to conclude that the threat level determines how often leaders will have to cope with higher levels of *cultural* and *physical adaptability* and *learning new technologies and/or procedures*. Moreover, the frequency with which the other dimensions of adaptability are encountered is not related to the threat level. We found that there are differences in the importance of physical adaptability between low or zero and high threat levels, therefore the importance given to the eight adaptability dimensions, with the exception of physical adaptability, is not related to threat level. Thus, the importance of physical adaptability varies according to threat level. From the analysis performed of the correlations between the frequency of the eight adaptability dimensions and the number of tasks, the threat level, the month total and age, we can conclude that the more missions a leader has been on, and the longer those missions were, the greater the need to *self-update* and the more often that leader will be required to cope with *crisis or emergency situations*. Consequently, the frequency with which leaders will have to adapt *physically and culturally* will also be higher, especially if the risk associated with the threat is high. From the correlations among the eight in terms of importance of the adaptability dimensions, and number of missions, threat level, month total and age, we can conclude that the larger the number of missions, the greater the importance placed on the need to *cope with crisis or emergency situations*, and the older respondents are, in addition to the importance placed on the need to *cope with crisis or emergency situations*, the higher the importance of *coping with stressful situations in the workplace*.

From the analysis performed using the composite scale for the adaptability dimensions to define a general training profile for the FFAA and GNR, we may conclude that all adaptability dimensions are important for both the GNR and the FFAA, but the frequency with which these dimensions are dealt with is different. The critical dimensions (most important and infrequent) of adaptability in MMO are: *cultural adaptability*; *coping with unforeseen situations*; *solving problems creatively*; and *coping with stress in the workplace*. They therefore require additional training, as these are the most important dimensions,

but also occur less frequently. The remaining dimensions, considered the most important and the most frequent are essential adaptability dimensions, although training for these is not as critical as for the former. A finer analysis by Branch shows that the only important dimension that also occurs very often, according to military leaders from all three branches of the FFAA and the GNR, is interpersonal adaptability, and that the Army, perhaps because it is the branch that most participates in NDF, considers that all the adaptability dimensions are Essential, classifying them as very important, having had to deal with those dimensions very often in the various theatres.

We can state that the process to develop adaptability involves incorporating into operational training situations that call for the development of *adaptability to new cultures; coping with unforeseen situations; solving problems creatively; and coping with stressful situations* which require the promotion of *coping* strategies. The analysis presented helps clarify the requirements deemed essential and critical for preparing military leaders to deal with the requirements of MMO.

Upon further study, we are of the opinion that there are measures which, developed jointly and in an integrated manner, can and should be addressed in order to create the conditions to allow leaders to be more effective in MMO, through the development of doctrine on joint leadership based on the experiences and lessons identified as a result of vast experience in NDF. The selection of future leaders should be careful, taking into account the above dimensions; even more realism should be added to preparation and training, enabling the exercise of the eight dimensions of adaptability in the face of contingencies and complexity of MMO; mechanisms must be created to foster the development and promotion of decision making capacities, trusting relationships and motivation. On the other hand, as the eight adaptability dimensions are very general, a more specific evaluation will be necessary in future researches. Furthermore, the sample only included officers with ranks of captain or higher from different Arms/Services/Specialties of the three branches of the FFAA and the GNR, so this work may not include all the adaptability behaviours that may be relevant to other ranks and duties. Finally, further research is encouraged in future studies on leadership at the lower levels, such as platoon or section.

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Annex A – Interview analysis

Table A1 – Interview analysis

Dimension	Interview contents	Description
Type of operational environment	<ul style="list-style-type: none"> • “...the operational environment of Afghanistan can be classified as complex” - Interview A • “...multinational and multilingual ...difficult coordination and execution of operations ... the temperature was -10°C “ - Interview B • “...unstable... cultural differences, without clear boundaries... and violent... “ - Interview C 	<ul style="list-style-type: none"> • Different cultures; • Coordination difficulties, • physical adaptability; • Complex; • No boundaries.
Command Action	<ul style="list-style-type: none"> • “...subordinates must not doubt what the intention is... with the ability to improvise” Interview A • “...need for decentralized command with high initiative “- Interview B • “... need to delegate authority and the responsibility to act” - Interview C • “...finding the solution to problems and then not finding anyone available to support the decisions made” - Interview F 	<ul style="list-style-type: none"> • Decentralization; • Flexibility; • Initiative; • Innovation; • Commander’s Intent; • Decision making skills.
Type of threat	<ul style="list-style-type: none"> • “...easily concealed among the local population” – Interview A • “... the performance of the threat is uncertain ... the situation in Kabul was very uncertain” - Interview B • “... enemy... identification difficulty (“mixed” with the population)” - Interview C 	<ul style="list-style-type: none"> • Nonlinear threat that hides among the population, learning to copewith situations of uncertainty, and with stress
Leader adaptability	<ul style="list-style-type: none"> • “... I had to adjust the tasks” Interview A • “...temporary restructuring of the chain of command in a way that was not originally planned “- Interview B • “...the joint patrols caused some trepidation... what would their reaction be to a contact situation” - Interview C • “...while fulfilling a mission I was confronted with a subordinate who interrogated me” - Interview F 	<ul style="list-style-type: none"> • Ability to copewith unforeseen situations • Ability to cope withstressful situations and uncertainty • Interpersonal adaptability

Tabela A1 – Interview analysis (continued)

Dimension	Interview contents	Description
Type of training	<ul style="list-style-type: none"> • “...realistic training using scenarios and incidents from real examples... with real resources” Interview A • “... a good workout that enables quick restructuring according to what is waiting upon arrival on site... with all the material that will be brought along” Interview B • “...training of commanders in order to make the decision making process more flexible! Interview C • “...a clash between the elements must be ‘provoked’ at this stage, that is, creating difficult situations that require strong and dependent interaction between all the elements, so that everyone realizes they belong to a group and that success or failure is the work of the whole ... the union among ‘Commanders and Commanded’ will be stronger the more difficult is the challenge overcome” Interview F 	<ul style="list-style-type: none"> • Building trusting relationships; • Motivation; • Decentralization; • Flexibility; • Learning to copewith new technologies, tasks and procedures

Source: Rodrigues (2013)