

LAND WARFARE POST 2nd WORLD WAR UNITED STATES OF AMERICA

O EMPREGO DE FORÇAS TERRESTRES
PÓS 2^a GUERRA MUNDIAL

ESTADOS UNIDOS DA AMÉRICA

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Abstract

As human beings live on land, it is in this physical environment that the majority of military operations lead to decisive political outcomes. This fact renders the employment of land forces an unavoidable subject when studying the Military Instrument and the Grand Strategy of States. The central element of this analysis is the evolution of land warfare since the 2nd World War, focusing on the United States campaigns, one of the main heirs of the Continental School and an unquestionable reference for the other Armed Forces.

This paper focuses on two dimensions, the use of force, where the balance between firepower and maneuver is examined, and doctrine, where the levels of war and the type of approach to operations were studied.

Keywords: Land Forces, Maneuver, Firepower, Levels of War, Approach to Operations.

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Resumo

Dado que o ser humano habita o meio terrestre é neste ambiente que, maioritariamente, as operações militares conduzem a resultados decisivos ao nível político, pelo que a análise da aplicação das forças terrestres torna-se incontornável no âmbito do emprego do Instrumento Militar e da Estratégia Total do Estado. Tendo como elemento central deste estudo a evolução do emprego das forças terrestres desde o final da 2ª Guerra Mundial, o presente texto centra-se na aplicação de forças terrestres por parte dos Estados Unidos, um dos herdeiros da Escola Continental, e uma das mais importantes referências para os restantes Instrumentos Militares.

O estudo apresentado centra-se em duas dimensões, o emprego da força, onde é analisado o balanceamento entre fogo e manobra, e a doutrina, onde se abordam os níveis da guerra e o tipo de abordagem às operações.

Palavras-chave: Forças Terrestres, Manobra, Fogo, Níveis da Guerra, Abordagem às Operações.

Introduction

Historically, since the beginning of the modern age, the Continental School has been a figure of reference for the theories on the application of land forces. This School of strategic thought, in addition to being an inescapable influence in the field of Geopolitics, incorporates the knowledge obtained in Europe on how to conduct war in a land environment, effectively shaping modern conceptions. Resulting from this autonomous knowledge, and according to Michael Evans (2004, p. 22), the Continental School emerged in the mid-19th century and developed over one and a half centuries, through four great influences.

The first influence is centered on the campaigns of Napoleon and on his experience with decisive battles in warfare. The concept of decisive battle rests on the ability to reach certain strategic goals for a campaign through a single victory in one battle, that is, in tactical terms, on the annihilation of the opposing Army. This concept is described by the Russian Isserson as a Strategy of a single point, in which great masses of forces meet in a battle circumscribed in space and time and in which victory was achieved through maneuvers aimed at a single decisive point (Schneider *cit.* Evans, 2004, p. 24). In this battle, condensed in time and space, in spite of the technological advances regarding firepower, victory was achieved by the prevalence of maneuvers, usually through penetration or engagement. This way of using forces would dominate the remaining 19th century, inspired in battles like Austerlitz or Waterloo (Keegan *cit.* Evans, 2004, p. 23).

Concerning the levels of war adopted, although some theories defend that Napoleon may have been one of the first to introduce the operational level of operations, putting an

end to decisive battle, we consider that the French Emperor incarnated the god Janus, with one face towards Strategy, through defined goals, and the other directly towards Tactics, through the direct conduction of battle. However, the introduction of new concepts contributed to the future questioning of the feasibility of decisive battle. The legislation of *levée en masse* dramatically increased the size of the Army, posing difficulties to the direct command of the strategic level in tactical events, that is, battles. In contrast, with the concept of Army Corps, Napoleon introduced a tactical unit that was capable of moving and operating independently in the Theater of Operations, which nevertheless is an obstacle to the concept of decisive battle and the direct command of the strategic level. These new concepts, among other changes of the Napoleonic era, pointed to a new dimension in classic Land Warfare.

The second great influence emerges with the works of thinkers such as Jomini and Clausewitz who, inspired by the Napoleonic experience, disseminated the principles of Land Warfare to several military generations. These authors continue to emphasize the concept of decisive battle, and were still greatly concerned at the strategic level with the annihilation of the opposing Army at the decisive point.

The third influence emerged with the development of the Prussian General Staff in the late 19th century. The achievement is not the General Staff itself, but the way it adapted the Napoleonic campaigns to the industrial age, as the 19th century industrial revolution had helped erode the Napoleonic way of fighting a war.

The industrialization of the means of transportation, mainly through the railway, and of communications, with the introduction of the telegraph, offered standards of speed to land forces, as well as dispersion in spatial and temporal terms never before seen. Force mobility became essential, as they had to be able to be moved into and out of the Theater of Operations. In addition to the ability to transport, command and control (C2) at the tactical level, the introduction of new weapons technology which increased lethality and favored the defense also put into question the concept of decisive battle. The technology triggered a change at the level of use of force, and maneuvers began giving way to firepower. Nonetheless, “a bloodbath was needed in the first three years of World War I to expose how archaic the Continental School had become when compared to the evolution of technology and the dimension of war” (Evans, 2004, pp. 40 – 41).

The last influence emerges with the linking of Strategy to the use of force at the tactical level, the Operational Art developed in Europe, partially in Germany and mainly in the Union of Soviet Socialist Republics (USSR), in the period between World War I and World War II.

With the German and Allied offensives of 1918, at the end of World War I, there came about a transformation in the linear way of conducting war, based on Infantry but in a battlefield dominated by firepower, for in-depth operations involving the various elements of the land forces in a synergetic manner. With the acknowledgement that victory at the strategic level could no longer be achieved through the annihilation of the opposing force in a single battle, allied to new technological developments like the mechanization of forces

and wireless radio, the Operational Art emerged as a way of linking success in battle with the ends dictated by Strategy, planning and conducting campaigns.

World War II was a laboratory for a new way to conduct Land Warfare, as the employment of forces began focusing mainly on maneuvers in a battlefield no longer dominated by firepower. After 1945, with the collapse of Germany and France as military powers, the legacy and development of the Continental School migrated mainly towards the two rival superpowers, the United States of America (USA) and the USSR.

After the end of the Cold War, the concept of Military Land Instrument began including the use of land forces in a range of activities other than combat. Even though operations like Peace Support or Humanitarian Operations, among others, was not a new concept, their higher frequency during the post-Cold War period has been a reality. This increases the complexity of the use of land forces, as the intended final stage of their operation is no longer the defeat of enemy military forces and now demands the creation and sustainability of a safe and stable environment, allowing other instruments to intervene in pursuit of a stable peace.

Taking into account that it is only possible to conquer and control territory with land forces, and that their role has been expanded to include the establishment of a safe and stable environment, facilitating the intervention of non-military instruments, the study of land forces becomes crucial to understand the use of the Military Instrument in its entirety, as well as its role in the Global Grand Strategy of States.

An analysis of the use of land forces entails a focus on land forces, battles and campaigns. This focus does not in any way claim that political, economic, social or cultural factors are not determinants.

According to Colin Gray (2008 – 2009, p. 18), in order to further understand Strategy and the phenomenon of war we must put forward theories based on History. This idea is the foundation for the present analysis. In order to understand the way land forces are currently employed, we must understand their past use. Understanding the evolution of the employment of land forces is one of the premises for planning competencies to meet current and future challenges, making this component of the Military Instrument truly useful for conflict resolution.

For the purposes of this analysis, it must also be noted that actors, state or otherwise, do not conduct aerial, naval, land, space or cyber warfare, but simply war. Within this paradigm of use of force it would be unrealistic to examine isolated land operations for the period under analysis. Even though the analysis is focused on the use of land forces in Land Warfare, the effects produced by the remaining components of the Military Instrument in this physical environment are impossible to separate.

With the evolution of land forces as the central element of the analysis, and seeking a pattern for that evolution using the inductive method, we outlined the following delimitations for the research:

- The time frame for analysis was the period between the end of World War II and the present;
- With regard to actors, the analysis was focused on the use of land forces by the USA, one of the heirs of the Continental School, and one of the most important references for the remaining Military Instruments.

The text is divided into three chapters. The first two will frame the analysis, while the last will present the results of the research.

The first chapter expounds on the theoretical framework for the use of land forces. Therefore, it begins with their definition and that of the characteristics of the environment where they carry out their activities, the Land Environment. The interaction between the Land Environment and the employment of forces is also addressed, as the unique characteristics of this physical environment heavily influence the use of force.

After outlining the theoretical framework for the use of land forces it is necessary, for a better understanding of the analysis presented, to describe the model of analysis used in the observation of the actual application of land forces. This model is described in chapter two, giving a definition for each of the aspects and indicators that comprise it.

In chapter three, we will analyze the evolution of the USA land forces from the end of World War II to the present.

Finally, we will present the conclusions of the analysis.

1. Theoretical Framework

Land Power is defined, in the Portuguese Army, as “the ability, through the use or the threat of the use of land forces, to win, maintain and explore control of the terrain, resources and population” (Army, 2012, p. 1-14). This ability may achieve decisive results directly but, in most cases, it only sets the stage for the operation of non-military instruments with the purpose of achieving a stable, lasting peace. The embodiment of this ability is the fact that land forces must be capable of achieving the following goals:

- Prevailing over an opponent, resorting to use of force if necessary (Army, 2012, p. 1-14). This is perhaps the basic competency of an Army and the one which, throughout history, has had the most influence on the genetic design of forces.
- To implement and maintain a stable environment, creating the conditions for political and economic development (Army, 2012, p. 1-14). This competency entails creating and maintaining the conditions for stability, after establishing safety conditions, so that the remaining non-military instruments may intervene to achieve lasting peace in a certain territory or region.
- To restore infrastructures and reestablish basic services after the occurrence of catastrophic events, natural or man-made (Army, 2012, p. 1-14). This activity will contribute directly for a stable environment by ensuring that the needs of the population are met.

- To support and secure a base from which the joint force can influence and dominate the naval and aerial dimensions (Army, 2012, p. 1-14). In this situation, the land forces will serve only as support to the application of the Military Instrument in specific situations that do not require their use in a joint manner.

For Ruppert Smith, the force has different competencies and is a useful instrument that can be employed in different situations to:

- Improve a situation, for example, by establishing a cordon sanitaire, sanctions, border control, or isolation;
- Compelling behavior or restraining one of the disputing parties, or both;
- Disrupting structures, such as the neutralization of sources of financing, flows of material, freedom of circulation or denial of sanctuaries;
- Destroying or imposing a situation (Army, 2012, p. 1-14).

In spite of the different presentation, we were able, in this second approach, to identify the three primary purposes of the in force in Army doctrine, thus outlining the area of employment of land forces.

In essence, in a possible expanded concept of land force capacities, these would have to be able to defeat an opposing force on land, whether in a confrontation with standing armies or when faced with an asymmetric or even hybrid threat. In order to create and maintain a stable environment, primarily by establishing security, and because stability will be achieved mainly through non-military instruments, land forces must be capable of controlling terrain, even if for long periods of time, and – perhaps the hardest task – for ensuring the safety of the population.

We must now describe the determinants for the employment of land forces, with special focus on their physical operational environment, the Land Environment, and identify the features inherent to that use. This step is crucial for establishing a holistic view of the employment of land forces prior to a future analysis of case studies.

Regarding the Land Environment, in 1985, in his work *Race to the Swift*, Brigadier Richard Simpkin (1985, pp. 57 – 58) described the physical operational environment of land forces, the terrain, going on to describe the phenomenon of war. R. Simpkin describes the terrain as the natural environment for human beings, which simultaneously makes it the most complex environment. For R. Simpkin, land operations have three distinguishing features, directly influenced by the physical environment:

- Land operations are mainly concerned with possession or control of portions of land, including the population, which is an integral part of the environment. The fact that R. Simpkin draws attention to this is related to the political importance of the territory for state actors. For non-state actors, territory is also of vital importance, not in terms of the physical aspects of the terrain but with regard to the population living on it, who ensure their freedom to act.

- On a land environment, man can choose to what extent he will rely on machines for warfare. On a land environment, this enables less technological actors to mitigate their handicap by resorting to, for example, complex terrains like urban areas.
- The land environment varies in a complex manner with regard to the spatial dimension. This variation, which R. Simpkin mentions, in different types of terrain, weather, or even population density, means that a direct relationship between a unit of territorial dimension and the volume of land forces cannot be established.

Christopher Tuck (2008, pp. 67 -69), in his work *Understanding Modern Warfare*, presents four main attributes of the Land Environment: political importance, variety, friction and opacity, which may be considered an excellent synthesis of the physical operational environment of land forces.

With regards to political importance, Tuck states that in a land environment, the only environment humans live on, the control of the territory, only possibly through the use of land forces, is of vital importance for state actors. In our opinion, given that the population is an assurance of freedom of action for those operating irregularly, control of the territory, not in physical terms, but in terms of its population, is also crucial for non-state actors.

Variety represents the complexity of the land environment, given the impact that types of terrain, population and climate have on the conduct of operations.

Friction represents the additional attrition of the land environment, with respect to the friction intrinsic to military operations, in areas like movement and impact on human beings.

Opacity describes the ability of the land environment to offer cover and shelter, which reduces the technological abilities of firepower and intelligence gathering. The population, as part of the land environment, can also be used as cover and shelter, contributing for the opacity of the physical environment.

2. Model of Analysis

Studying the evolution of the employment of land forces since the end of the 2nd World War meant the analysis had to start by examining specific cases. This individual examination required the creation of a model of analysis for the employment of land forces. After researching the state of the art in the field, we established the dimensions that we deemed more relevant to the inherent features of the employment of land forces, as well as to an analysis of the views of the Continental School.

a. Use of force

The purpose of using land forces is to apply their combat potential to achieve an intended final state. The elements of combat potential consist in six combat features, synchronized synergistically by leadership and potentiated by intelligence (Army, 2012, p. 2-22). For our

model of analysis, we selected as one indicator the balance between the features of moving combat and maneuver¹ and firepower.

Maneuver aims to reach a superior position in relation to an opponent. In addition to movement, direct fire is also an inherent feature of maneuver (Army, 2012, p. 2-28). We adopted, as a concept for fire, the set of tasks and systems that ensure the use of indirect fire (land, naval and aerial) in a collective and coordinated manner (Army, 2012, p. 2-28). As we can infer from the concept, firepower must be analyzed from a perspective of support to land forces, and not only of support to their organic assets, that is, it is not possible to dissociate the support of the naval and aerial component from their counterpart on land.

According to Robert Scales (2003, pp. 30 – 31), the evolution of the operational use of land forces reveals a tendency to design forces based on domination through firepower, something that must be balanced with the need for maneuver forces capable of turning the results of that firepower into a lasting effect.

The author states that the pursuit of a balance between maneuver and firepower is as old as war itself. Because firepower cannot keep possession of a terrain, Scales maintains that its effects are merely temporary. On the other hand, maneuver offers the possibility for a party to establish a superior position in relation to the other. A maneuvering force seeks to explore the temporary paralysis of an opponent, primarily due to the effect of firepower. A party is considered defeated by maneuver when it is placed in a situation of isolation in which it loses the ability to influence the battle. For Scales (2003, p. 46), this contender has then two choices, to admit defeat or to face the possibility of annihilation. Maneuver and firepower must be orchestrated and applied in a balanced manner in order to achieve operational success. Both are necessary and complementary, but at the same time have competed for primacy on the battlefield.

b. Doctrine

With regards to the levels of war, currently defined as three – strategic, operational and tactical – we aim to evaluate the evolution of their adoption in the doctrines of the two actors under analysis. While this division into levels of war does not solely relate to land forces, their classification makes sense in terms of their use within the paradigm of cooperation of the Military Instrument.

The strategic level is the level of war in which nations determine their national or multinational goals, and apply their instruments of power, including the military (NATO, 2013, p. 2-S12).

The operational level is the level of war at which campaigns and large scale operations are planned, conducted and sustained to achieve strategic goals in a Theater of Operations (NATO, 2013, p. 2-O3). The operational level merges Tactics and Strategy by establishing operational goals required for the achievement of strategic goals. Activities at this level implicitly have

¹ Referred to as “maneuver” in the present text, for the sake of simplicity.

a broader temporal and spatial dimension than at the tactical level, making sure that tactical success can be explored to achieve strategic goals (JCS, 2008, p. GL – 22).

The tactical level is the level of war in which battles and engagements are planned and executed to achieve the military goals assigned to tactical units (NATO, 2013, p. 2-T2).

The second indicator in the area of doctrine is the type of approach to operations, that is, an attritionist or a maneuverist approach.

In order to define each approach we will resort once again to R. Simpkin (1985, pp. 19 – 23) and his definitions of both concepts. For this author, the attritionist approach is a form of combat that seeks victory through the number of human and material casualties inflicted on an opponent. The maneuverist approach is defined as the pursuit of opportunity and the exploration of an opponent's forced and non-forced faults with the purpose of undermining its cohesion as a system through the application of quick, focused and surprise actions.

For Robert Leonhard (1991, pp. 19 – 20), the maximum application of a maneuverist approach is the preemption² of an opponent's intent, neutralizing it before combat. When preemption is not possible, dislocation³ is sought, rendering the opponent's focus irrelevant. Ultimately, the maneuverist approach seeks the disruption of the opponent's center of gravity by attacking its critical vulnerabilities with the bulk of our forces. In summation, the difference between the two approaches is that the maneuverist approach seeks paralysis or, ultimately, the destruction of an opponent as a system, while the attritionist approach seeks victory through systematic destruction.

3. The evolution of the Military Land Instrument since the end of World War II

a. Cold War

There were two stages of operation for the USA land forces during the Cold War period. In the European Theater of Operations, a large scale confrontation with the Soviet bloc was being prepared jointly with the allied members of NATO. Parallel to the events on this Theater of Operations, the USA was involved in limited wars, from the Korean War, which began in 1950, to the intervention in Panama in 1989.

During the Korean War, the USA led the forces of the United Nations Organization (UN), using firepower to achieve an overwhelming combat potential (Degen, 2009, p.17). This approach, exchanging maneuvers for firepower, was intended to achieve victory with the lowest possible number of casualties. The preference for firepower over maneuver was reflected in the layout of the land force units for the campaign and in terms of tactical combat.

² An action started to counter an opposing action based on insurmountable evidence of its inevitability (an adaptation of the definition of preventive attack)(JCS, 2009, p. 424). Preemption explores an opportunity before the opponent does the same (Leonhard, 1991, p. 62).

³ Dislocation may be positional or functional (Leonhard, 1991, pp. 66 - 67). Positional dislocation renders the opponent's position irrelevant and forces the opponent to choose between neutralizing part of their forces and destroying them while attempting to reposition them into a more favorable position (Degen, 2009, pp. 25 - 26). Functional dislocation aims to mitigate an opponent's superiority in terms of their combat potential. An example of this mechanism is the operation in urban areas of technologically inferior forces mixed with the population, with the aim of rendering the application of an opponent's technology less effective or even irrelevant.

Designed to keep casualties to a minimum, adjustments were made to the doctrine in order to increase the fire support available to maneuver forces and to reduce the level of their exposure to close combat (Scales, 2003, p. 46). The changes to the organization of forces, which increased the availability of fire support, reflect the planning choices for the campaign, while the aversion to close combat points to a clear choice at the tactical level of a form of warfare aimed at minimizing the risk of casualties.

When the front was stabilized, the UN land forces initiated a stage of intense patrols around their tactical points with the intent of establishing contact with the opponent, drawing their attention and destroying them through indirect fire (Tuck, 2008, pp. 102 – 103). This form of tactical level combat represents the abovementioned aversion to close combat, which increases the risk of casualties. The problem with this approach was the opponent's ability to adapt. The Chinese People's Liberation Army (PLA) ceased acting *en masse* and started dispersing, moving at night and gathering only before launching an attack. By acting adaptively, by not offering a rewarding target, the PLA countered the opponent's intent of destroying it through indirect fire.

During the Vietnam War, General DePuy describes the American way of waging war on land, stating that if we wished to analyze the events in Vietnam, we would say that the Infantry's job was to find the opponent so that the Artillery and Aviation could destroy it (Krepinevich *cit* Degen, 2009, p. 17). DePuy believed that the balance between firepower and maneuver had evolved to the point where the Infantry's central role in the Army had been replaced by fire support (Herbert *cit* Scales, 2003, p. 52). General Bruce Palmer, Deputy Commander for General Westmoreland in Vietnam, said that the Army's cultural dogma was to apply technology as a replacement for men on the ground (Lewis, 2007, p. 263), however, like the PLA in Korea, the Vietcong and the Vietnam People's Army knew how to adapt to this superiority in firepower, using dispersion and complex terrains like jungles or urban areas (Lewis, 2007, p. 253).

Replacing maneuver for fire also had consequences for the population. Without safety, the population's support was impossible to gain. Without support from the population, a subversive war against the Vietcong was impossible to win (Lewis, 2007, p. 239). Of course, to ensure the safety of the population, it was imperative to have forces on the ground with that priority. In addition to the option for firepower, already potentially alienating for the population, the lack of maneuver forces had direct impact on the safety of the population, and contributed to that alienation. Nonetheless, there was a perceived need to win the population war. The North-American Marines were an example of this. Lieutenant-General Victor Krulak, Commanding General of the Fleet Marine Force, Pacific, concluded that each soldier searching for the Vietnam People's Army was a waste. He outlined what was known as the enclave Strategy, in which small units – platoons and companies – worked in collaboration with the South Vietnamese popular forces and with the population in each enclave to ensure continued safety and simultaneously to create bonds of trust with those populations, which would remove Vietcong support (Lewis, 2007, p. 256). The importance of this approach is

evidenced by the fact that no villages in this program fell under communist control (Archer *cit* Lewis, 2007, p. 258).

In terms of the relationship between intended strategic goals and tactical actions, the absence of the operational level from the levels of war made the USA maintain a Strategy-Tactics duality up until the reforms of 1970 and 1980. This direct link carries the risk of creating a lack of coherence in the countless battles at the tactical level in the overall campaign, mainly due to the lack of Operational Art as a planning tool. Without a common thread of an entire campaign conducted until strategic goals are achieved, each tactical action runs the risk of focusing only on the systematic destruction of the opponent, the attritionist approach.

The attritionist approach, which privileges the systematic annihilation of the opponent, is evidenced in the orders given to Lieutenant General Van Fleet when he assumed the command of the Eighth Army in the Korean War – “to direct the efforts of your forces toward inflicting maximum personnel casualties and material losses on hostile forces in Korea” (Lewis, 2007, p. 141).

The type of approach to operations in the Vietnam War was similar to that of the Korean War, even though the population and irregular warfare were also part of the environment. Instead of attempting to separate the population from the subversive movements and eliminating the root causes, North-America went the attrition route.

In 1969, at the level of the Theater of Operations, the North-American forces initiated an attempt to change the approach to operations, mainly due to the inefficiency of the attritionist approach, poor results and the costs not justifying the gains. In March that year, General Abrams, Westmoreland's successor, changed the focus of campaign level operations, placing more emphasis on ensuring the safety of the population and the forces on the ground (Lewis, 2007, p. 287). Later, Abrams mentioned that, for the first time in the Vietnam War, the opponent's traditional power bases could be challenged – their political organization and control of the population (Lewis, 2007, p. 287) - that is, an attempt to dislocate the threat and to disrupt the opponent's gravity center, in a maneuverist approach.

After the American defeat in Vietnam, the USA focused again on the European Theater of the Cold War. In the reform initiated, Generals DePuy and Donn Starry shared the opinion that the USA had an obsession with firepower and casualty count, that is, attrition. They called it a tacticization of Strategy (Evans, 2004, p. 57). This characterization showed the absence of the Operational Art ensuring coherence throughout tactical actions, thus avoiding an excessive focus of Strategy on destroying the opponent, battle by battle, with the ensuing loss of visualization of the temporal horizon for the employment of forces until the intended final state. The loss of temporal horizon carries the risk of resorting to unnecessary destructive actions to achieve final success in the campaign.

Between 1973 and 1976, the Active Defense doctrine emphasized the importance of the first clash with the Soviet forces, integrating the experiences of the Yom Kippur War, and was basically an attempt to find the best application for the existing technologies in a defense situation. Critics such as John Boyd and William Lind stated that this doctrine was

too focused on lethal technology and not enough on maneuver, rendering it an attritionist approach (Czege, 2006, p. 5). This doctrine also lacked an operational level of war, which enabled an expansion of the temporal focus beyond the first clash. In 1976, DePuy finally introduced the operational level into the military land doctrine.

Between 1976 and 1986, the USA Army began a transition from the thinking rooted in World War II to the doctrine known as AirLand Battle. This transformation focused on the attempt to synchronize fire with maneuver and in viewing rear area combat, close combat and deep combat as elements of modern combat, inseparable, simultaneous and complementary. The concept of spatial division of battlefield countered the Soviet doctrine of Deep Battle (Czege, 2006, p. 8) and expanded not only the spatial but also the temporal horizon for planning the employment of land forces. The AirLand Battle doctrine also represented a change for the maneuverist approach to warfare.

b. Post-Cold War

After the end of the Cold War, the USA was involved, as early as 1991, in a new conflict, the Gulf War. The victory of the coalition led by the USA persuaded many theorists that new technologies had revolutionized warfare. Intelligence gathering abilities, precision-guided munitions, and the suppression of anti-aircraft warfare, stealth and C2 afforded by digitization were changing the character of warfare, in a true Revolution in Military Affairs (Bidle, 2007, p.104). With regard to the balance between firepower and maneuver, the Gulf War would be the definitive victory of the option for the primacy of firepower, especially of the aerial component. However, this point of view is reductive in terms of the effects of doctrine and of the Iraqi response.

Edmund Degen explains that the strong resource to firepower by the coalition was successful because the Iraqi did not have a method for countering the American superiority (Degen, 2009, p.18). The Iraqi defense did not possess the cover or stealth, or the independent capacity for maneuver at the lower levels, nor the integration in terms of combined arms required by the modern system of employment of forces (Biddle, 2006, p. 137). Thus, the Iraqi did not know how to take advantage of the complex terrain and lead an adaptive maneuver that might mitigate the technological superiority of the coalition. The Iraqi did not resort, for example, to dispersion and urban combat as a way of effectively dislocating North-American technology in terms of intelligence gathering and firepower.

The notion that the battlefield would again be paralyzed by the supremacy of fire, primarily aerial fire, in relation to maneuver, something which had not happened since the 1st World War, is also denied by specific reports from the Theater of Operations, such as one by an Iraqi Battalion Commander who, referring to close combat with North-American maneuver forces, stated that “after five weeks of war he had lost only two tanks to aerial fire, while in less than six minutes he had lost his entire unit against land forces” (Lewis, 2007, p. 362). General data from the end of the war also confirm this view. During the war on the ground, out of the 2159 tanks destroyed, land forces were responsible for 1708 and aerial power for 451. Of the

519 armored personnel carriers destroyed, land combat was responsible for 297 and aerial action for 224. Of the 1465 Field pieces destroyed, land forces are credited with 1112 and the Air Force with 352 (Lewis, 2007, p. 367).

In order for firepower to paralyze the battlefield, it was also required that the ability to gather intelligence could make it transparent, but the reality of land operations was that the fog of war remained a valid concept. Unlike molding operations, in which attacks had terrain-related goals, the VII Corps, the decisive operation, had to use maneuver for establishing contact, drawing attention and destroying the opponent. Information gathered by aerial resources – Airborne Warning and Control Systems, U2 reconnaissance aircraft and satellite technology provided General Franks with a view of the opponent's movements, although it was an incomplete view. Those technologies did not remove the fog of war. General Franks continued having doubts regarding the opponent's intent (Lewis, 2007, p. 353). Another concrete example is given by Lieutenant Richard Bohannon's statement on the actions of the night of February 26, 1991. Bohannon recalls that on a certain night he fought the 29th Brigade of the Tawakalna Division, when the original mission was the destruction of the Medinah Division of the Republican Guard. The discovery of such a high level force in his area of action constituted a surprise (Lewis, 2007, p. 362).

The notion of fire superiority subsisted until the NATO intervention in Kosovo. The American experience in this Theater of Operations suggested that, while precision-related technology is continually evolving, the balance between firepower and maneuver will also continue to depend on the nature of the opponent and the terrain.

The Serbian Army, using dispersion and cover, suffered few casualties from the intense air strikes. Only the action of land forces, represented by the Kosovo Liberation Army, forced the Serbians to abandon their cover and gather for combat. It was only from this moment on that the air campaign against tactical targets began to enjoy moderate success (Scales, 2003, p. 71). This view is also shared by S. Biddle (2006, p. 58), who states that in 1999, the Serbian land forces may not have been able to fully implement the modern system of use of force, but without a land threat by NATO, they were able to use the terrain and the proximity of civilians to keep their equipment under cover for the majority of the time. As a result, 78 days of air campaign by NATO involving tens of thousands of deployments produced, at the most, a few hundred Serbian land targets hit.

With regard to doctrine, at the end of the Cold War, AirLand Battle was still active in the USA Army, so it was to be expected that the 1991 Gulf War expressed the maneuverist approach to operations. An operational analysis shows that the combination of frontal attack in Kuwait with the surrounding events and movements in Iraqi territory, on land and on air, was almost a transposition of the "club sandwich" model (Simpkin, 1985, p. 154). This maneuver avoided the tactical points of the Iraqi defense in Kuwait, thus applying the concept of positional dislocation of the maneuverist approach.

Regarding the levels of war, the three-level division started being called into question during the 1990s. Precision-guided munitions, advanced abilities of Intelligence, Surveillance,

Target Acquisition and Reconnaissance (ISTAR), stealth technology and C2 digitation presented the strategic commander with the temptation to lead the tactical battle directly. With this ability, which could cause the compression of the three levels of war, there was the risk of returning to a Strategy-Tactics duality (Evans, 2004, p. 69). Another aspect that emerged from the experiences in the Gulf, in Somalia, in Bosnia and in Kosovo was the revolution in intelligence, with any local event viewed at a global level through the current capacity of the media. The defenders of the end of the operational level argued that there was an increasing possibility for strategic decisions to depend directly on tactical actions, and terms like Strategic Corporal appeared.

The final aspect highlighted by the defenders of the end of the three levels of war was the need to integrate all the instruments of power of the State in the planning of campaigns. Among them, R. Leonhard stated that “the idea of a theater military campaign is no longer relevant. Theater operations have become so intertwined with global considerations, and military factors have become so integrated with diplomatic, economic and cultural factors, that theater warfare is becoming indistinguishable from global grand strategy” (Leonhard, 2003). This view was refuted by many who consider the Operational Art and the concepts associated with the operational level applicable throughout the whole range of military operations (Evans, 2004, pp. 80 – 8).

c. Post-September 11, 2001

After the September 11 attacks, the USA became involved in two limited wars, Afghanistan and Iraq.

In Afghanistan, initial success gave way to more difficult battles. The Taliban and Al-Qaeda began using dispersion, cover and deception to mitigate the effects of firepower. In mitigating the effects of firepower, primarily based on the aerial component, they forced the USA to focus on using land forces with greater emphasis on maneuver (Tuck, 2008, p. 113).

The conflict in Afghanistan revealed once again the limitations of firepower. Aerial sensors are not able to find all the targets on their own, mainly due to the complexity of the terrain and to the majority of the threat operating among the population (Jarkowsky, 2002, p. 16). Operation Anaconda, initiated in 2002 with the goal of eliminating Taliban and Al-Qaeda pockets of resistance, showed the need for land forces with focus on maneuver for finding, drawing attention and destroying the opponent. The task of destruction was carried out, whenever possible, by firepower instead of assault. However, this kind of approach to close combat was often mitigated, due to the opponent blending with the population. This aspect was aggravated even more in Iraq, after 2003, as a result of the exchange of the Afghan mountains for Iraqi cities as the opponent’s preferred field of action.

The conflicts in Afghanistan and Iraq showed that firepower and intelligence technology are not a cure-all for current warfare (Hammes, 2004, pp. 191 – 192), and gave credence to those who had expressed concern with the USA’s Joint Vision 2010, published in 1997, which

stated that victory would be gained through intelligence and precision guided munitions. The document published by the USA Army in 2005, *The Army in Joint Operations*, was presented as a lesson learned and identified the need for maneuver forces that can first dominate and conquer the field and subsequently maintain a safe, stable environment (Degen, 2009, pp. 24 – 25).

With regard to intelligence, it was made clear that the battlefield was far from being transparent. In Operation Anaconda, less than half the Al-Qaeda combat positions uncovered were known to North-American forces prior to contact by land forces, in spite of an intense reconnaissance effort using the most advanced surveillance technology. What is more, most of the fire taken by North-American forces in Operation Anaconda came from previously undetected Al-Qaeda positions (Biddle, 2006, pp. 56 – 57). Also in Iraq, General Franks stated that during the combat operations he had not expected to find the Fedayeen outside Baghdad. This surprise was, in his opinion, due to the fact that even though intelligence analysts had access to reconnaissance images of pick-up trucks with cargo covered by tarps and civilian buses full of passengers moving towards the South, these data did not raise any concerns. The estimated number of Fedayeen was, in the end, around 40000 (Lewis, 2007, p. 420).

In Iraq, the impact of technology and fire can be divided among regular and irregular forces. After witnessing his forces being destroyed by the coalition's capacity to destroy Iraqi tanks in open field, Saddam was expected to see the obvious: the only way to face the Western forces was to force them to operate in a complex terrain. But, for reasons unknown, Saddam did not take advantage of urban areas. Once again, the forces of the coalition could take maximum advantage of their technological superiority. Still, even during combat operations, it was the Fedayeen irregular forces who, through attacks in urban areas, posed the greatest threat to the North-American forces. In the post-invasion period, irregular groups throughout the whole country continued to take advantage of urban areas in their struggle against the coalition forces (Thornton, 2007, pp. 136 – 137). This forced the North-Americans to conduct large-scale operations in this type of terrain, as in Fallujah, with the intent of denying possession to irregular groups. Here, the problem was that even when military success at the tactical level was achieved, like in the second attack on Fallujah, the consequences at the level of the Theater of Operations were negative, due to the excessive use of firepower, alienating the population and expanding the irregular's recruitment base.

The beginning of the Iraq campaign, when coalition forces were mainly engaging with Iraqi regular forces, seemed to confirm a change in the USA's approach to the balance of firepower and maneuver that leaned even further towards firepower, a choice based on technology. Rumsfeld believed that the AirLand Battle doctrine represented Cold War thinking. With the Revolution in Military Affairs underway, Rumsfeld believed technological developments and new forms of operation meant that small land forces could achieve the same goals as a substantially larger force from the 1990s (Lewis, 2007, p. 413). The initial success of firepower did lead to the impression that technology would replace maneuver. Even though this idea was shown to be partially true during the stage of large scale combat operations

in Iraq - facilitated as it was by Iraqi inadequacy – it proved to be fatal with regards to the inability such a small force demonstrated in carrying out the transition stage. In this scenario, the growing subversion in Iraq was fed by the insufficient number of US troops, by the poorly outlined structure of the forces, by the wrong technology, by the lack of understanding of local culture, by the belief that they would be welcomed as liberators, by the demobilization of the Iraqi army, by the failure to put an end to the violence and looting, by the failure to identify the real threats, internal and external, by the failure to control arms caches and to disarm the Iraqi Army, by the relocation of already scarce resources to the search for weapons of mass destruction, and by the delay in restoring basic services (Lewis, 2007, p. 437). All these tasks would have required the presence of maneuver units on the field, units that were not available in sufficient numbers.

With current conflicts, the issue of the validity or compression of the levels of war is still ongoing. Operational Art is charged with considering only the military aspect in the planning of campaigns, as was the case of Iraq in 2003, thus blocking an articulation with the other instruments of power of the State. For that reason, the defenders of the separation of goal definition and final state at the strategic, campaign planning and management levels, point to a unified multi-instrument approach at the strategic, operational and tactical levels as a requirement for success in a counter-subversion campaign (Cassidy, 2008, p. 19). When looking at the phenomenon of counter-subversion, an instrument for those fighting an irregular war, as more than a military activity, we can conclude that a purely military solution for that phenomenon cannot be easily found.

In terms of the type of approach to the performance of operations, the notion of employing the Military Land Instrument to gain a quick victory, within the maneuver view, can be the expression of how the USA wanted to fight, and not of the reality of what they were actually up against (Scales, 2003, p. 114). This occurred because the USA, historically, have neglected their maneuver focused doctrine and fought their wars relying on firepower and destruction (Degen, 2009, p. 22). In spite of this historical inconsistency, mainly against opponents who act asymmetrically, there are signs of an attempt to change when facing opponents who resort to irregular warfare. In 2005, when the President of the USA made public the national Strategy for victory in Iraq, the first intermediate goal was clear on the need to isolate the threat from the population (Lewis, 2007, p. 446). This change points to a maneuverist approach, by placing emphasis not on the direct destruction of the threat but on the attempt to remove the opponent's freedom of action and support basis. This approach can be framed in the preemption of actions by the threat, as it removes one of the requirements for action, population support. It can also be seen as the effective dislocation of one of the threat's tactical points, the cover granted by that support. If we view population support as one of the core requirements of any gravity center, or even the gravity center itself, we are then looking at disruption, another instrument of the maneuverist approach.

Conclusions

The application of the Military Instrument, albeit in a joint paradigm, has resorted to the employment of land forces to achieve the intended results. Given that human beings live on land, it is in this environment that most of the goals outlined by the Policy can be achieved. In this view, and considering that it is only possible to control territory and to ensure the safety of the population living in that territory by employing land forces, the role played by these forces has been expanded to include the establishment of a safe and stable environment, facilitating intervention by non-military instruments. As a result, we reiterate that the analysis of the employment of land forces contributes to an understanding of the application of the Military Instrument as a whole, as well as of the Global Grand Strategy of States.

The starting point for this analysis was the accumulated knowledge on the employment of land forces in the Continental School. This School of strategic thought, in addition to being of incontrovertible importance to the field of Geopolitics, incorporates the knowledge that emerged in Europe on forms of land warfare since the Napoleonic Wars, unescapably shaping the modern concept of Military Land Instrument.

Prior to the analysis of the evolution of the employment of land forces, a theoretical framework was established defining its main aspects and competences. In our opinion, land forces have the skills needed to defeat an enemy in a land environment encoded in their DNA, whether fighting regular forces or when facing an asymmetrical threat. The goal of creating and maintaining a stable environment, another mission of land forces, mainly through the creation of safety - as stability will be achieved primarily through non-military instruments -, will require the ability to control a terrain, for long periods of time if needed and, perhaps the hardest of tasks, the ability to ensure the safety of the population. All these activities, be it the defeat of an opponent or the creation of a safe and stable environment, are shaped by the interaction between the employment of forces and the Land Environment. The synthesis of this interaction is the tendency of the Land Environment to mitigate the use of technology, as well as to increment the entropy inherent to military operations. That human beings inhabit the Land Environment on a permanent basis is a determinant for the force-environment relation, as it is impossible to separate the employment of forces from the population.

An examination of the employment of land forces by the USA, an heir of the Continental School, allowed us to determine a pattern of behavior through the evolution of the application of land forces.

In the balance between firepower and maneuver, the Military Land Instrument of the USA, in all conflicts that took place during the analyzed period, showed a preference for firepower, attempting to achieve positive results with the minimum personnel casualties possible. Even though this approach limits close combat casualties, it gives the opponent the ability to adapt, allowing them to counter the effects of firepower. The low efficacy of the preference for firepower is essentially due to the ability of both regular forces and

asymmetrical threats to mitigate the related technology, as well as to the alienation effect on the population, in the cases when it is an actor of relevance.

Regarding the levels of war, the USA maintained a Strategy-Tactics duality up until the end of the Cold War. It was only with the introduction of the AirLand Battle doctrine that the USA officially adopted the operational level. With the introduction of technology like precision-guided munitions, of advanced ISTAR abilities, of stealth technology and of C2 digitization, a debate began on the understanding of the three levels of war. Other arguments by the defenders of the end of the operational level have been the revolution of intelligence and the need for integration of the State's non-military instruments of power. Nevertheless, the USA keeps the three levels of war in their doctrine and practical application, also seeking the integration of the Military Instrument with the other instruments in the three levels of war, especially when the population is a determinant actor in the Theater of Operations.

In the limited wars where the USA employed their Military Land Instrument, they practiced an attritionist approach to operations, whether through the method of systematically destroying regular forces or through the alienation of the population, the lack of maneuver forces to ensure safety or the focus on destruction in scenarios with asymmetrical threats. With AirLand Battle, a maneuverist approach to operations was introduced. However, with exceptions like the Gulf War in 1991, the USA has overlooked this doctrine at the operational level, conducting their campaigns by systematically destroying the opponent. This tendency has been reversing, with the USA demonstrating a willingness to apply a maneuverist approach against opponents fighting an irregular war, as is the case of Afghanistan, which reveals their ability to learn.

The combination of this pattern with the trends in the evolution of the Operational level allow us to establish a generic prediction for land forces, at least for those in contexts pertaining to the USA, such as the Atlantic Alliance. The prevalence of internal conflicts, with the interference of external actors, points to future interventions by the Military Land Instrument on the levels of crisis and limited war. In a context of quick campaigns against regular forces, military powers will tend to use technology in an attempt to achieve decisive results through firepower. Whenever an opponent adapts to the firepower dominated environment, using dispersion, complex terrains and fighting among the population, the balance of maneuver and firepower will shift. When military interventions face an asymmetrical threat, or even when they are simply in the presence of one, land forces will have to give preference to maneuver to establish a safe and stable environment, as they are prevented, for efficacy reasons, from trading forces on the terrain for technology. In another view, the tendency for urbanization of the Operational Environment and the underlying presence of the population and the media also imply a prevalence of maneuver. The focus on maneuver implies that, in order to establish a safe and stable environment, there is also a need for specific skills, such as those pertaining to civil matters, in addition to combat forces.

The importance of maneuver does not imply, however, a decrease in relevance of firepower and related technology. Firepower will remain crucial, especially when facing regular forces

and attempting to achieve their expedient surrender. That is, the Military Land Instrument, when balancing firepower with maneuver, must keep its versatility, even because it is an assurance of usefulness in a future of conflicts without individual character.

In the doctrine, the issue of the possible suppression of the operational level may remain under discussion. However, the exclusion of the level of planning and conduct of campaigns prevents the orchestration of the set of battles and engagements, and it may imply a return to an attritionist approach to operations, even in a clash between regular forces. However, for the three-level model to stay valid throughout the entire range of military operations, a greater combination of the military and civilian instruments will be required, mainly through a greater involvement of the strategic level in the planning and conduct of campaigns. This involvement must occur at the levels of Global Grand Strategy and Military Strategy. In summation, with regard to the integration of the State's instruments of power, two application stages will be required, at least. The strategic, closely linked to Policy, where Military and Global Grand Structure will possibly merge, and the operational, where a greater involvement by Strategy is required, whether in the planning of campaigns or in their conduct.

Still in the doctrine, regarding the approach to the conduct of operations, the maneuverist approach tends to be the natural choice of the Military Land Instrument. The evolution towards smaller forces will tend to force an approach that is less wearing and more efficient than attrition. At the same time, aspects of the Operational Environment such as the presence of the media and the globalization of events may prohibit, at the strategic level and at least in the case of democracies, a choice for the systematic destruction of an attritionist approach at the operational and tactical levels. While this conclusion may not be very arguable regarding conflicts between regular forces, when facing asymmetrical threats the focus on the systematic destruction of the threat must be abandoned and changed for the safety of the population.

Although this perspective points to a path of transformation, we believe it useful to summarize a few of the points related to the employment of the land component of the Military Instrument.

The first of these points is technology. Technology is not a problem in itself, much to the contrary, but is problematic due to the perception it tends to create of an expedient resolution with a low cost in human lives of any situation where the Military Instrument is employed. This situation, aside from a potential for excessive interventionism, leads to an incorrect evaluation of the situations when forces will be used. If the situation is not well defined, the application of the Military Instrument is likely to be different from the final state intended by Policy. In order to overcome this dissonance, it is necessary to understand the immutable nature of war, at least until the present day, with the use of force still a dialectic of wills and the battlefield still far from its alleged transparency.

Another crucial point is the definition of what is intended from the Military Instrument, and consequently from its land component. As a conventional war is still a possibility, regardless of how likely it may be, the ability to defeat an opponent in military terms, in this scenario, remains a requirement for the Military Land Instrument. However, whether after

military defeat or in other unconventional scenarios, it is necessary to achieve and maintain a safe and stable environment, including in the presence of opponents acting asymmetrically. Only this ability will allow, in a first stage, and potentiate, in later stages, the intervention of the other instruments of power of the State, the ones who are actually capable of achieving a sustained, lasting peace.

In this second scenario, in establishing a safe and stable environment the Military Land Instrument cannot rely solely, or primarily, on technological superiority, but especially on an effective presence on the ground, potentiating interaction with the population.

Finally, we reiterate that the employment of the Military Land Instrument will remain a combination of elements of surprise and continuity. Within this continuity, perhaps what is most relevant for peace is that the paradigm of use of force must be that of success, a safe and stable environment, in contrast with a paradigm of victory.

Bibliographical References

- Biddle, S., 2006. *Military Power: Explaining Victory and Defeat in Modern Battle*. New Jersey: Princeton University Press.
- Cassidy, R., 2008, *Counterinsurgency and the Global War on Terror*. Stanford: Stanford University Press.
- Czege, H. W., 2006. Lessons from the Past: Making the Army's doctrine "Right Enough" Today. *Landpower Essays*, [Em linha] setembro. Disponível em: http://www3.ausa.org/pdfdocs/lpe06_2.pdf, [Consult. 12 Ago. 2010].
- Degen, E. J., 2009. Dominant Land Forces for 21st Century. *The Land Warfare Papers*, [Em linha] N° 73. Disponível em: http://www.ausa.org/publications/ilw/ilw_pubs/LWP/Documents/LWP%2073_Dominant%20Land%20Forcesv2.pdf, [Consult. 07 Ago. 2010].
- Evans, M., 2004. The Continental School of Strategy: The Past, Present and Future of Land Power. *Study Papers*, [Em linha] N° 305. Disponível em: <http://www.defence.gov.au/army/lwsc/SP305.asp>, [Consult. 18 Ago 2010].
- Exército, 2012, *PDE 3-00 Operações*, Lisboa.
- Gray, C. S., 2008. The 21st Century Security Environment and the Future of War. *Parameters*, [Em linha] Winter 2008-09. Disponível em: <http://www.carlisle.army.mil/usawc/Parameters/08winter/gray.pdf>, [Consult. 21 Ago 2010].
- Hammes, T. X., 2004, *The Sling and the Stone: On War in the 21st Century*. St. Paul: Zenith Press.
- Jarkowsky, J., 2002. *Boots on the Ground: Will U.S. Landpower be decisive in Future Conflicts?*. [Em linha] Carlisle: United States Army War College. Disponível em: <http://smallwarsjournal.com/documents/jarkowsky.pdf>, [Consult. 14 Jul 2010].
- Joint Chiefs of Staff, JCS, 2008, *JP 3-0 – Joint Publication 3-0: Joint Operations*. Washington.

- Joint Chiefs of Staff, JCS, 2009, *JP 1-02 – Joint Publication - 02: Department Of Defense Dictionary Of Military And Associated Terms*. Washington.
- Leonhard, R. R., 1991, *The Art of Maneuver: Maneuver – Warfare Theory and AirLand Battle*. New York: Ballantine Books.
- Leonhard, R., 2003. Sun Tzu's Bad Advice: Urban Warfare in the Information Age. *Army Magazine* [Em linha] Vol. 53, no. 4. Disponível em: <http://www3.ausa.org/webpub/DeptArmyMagazine.nsf/byid/CCRN-6CCS88>, [Consult 14 Ago 2010].
- Lewis, A. R., 2007, *The American Culture of War: A History of US Military Force from World War II to Operation Enduring Freedom*. New York: Routledge.
- OTAN, 2013, AAP-6: *NATO Glossary of Terms and Definitions*. Brussels: NATO Standardization Agency.
- Scales Jr., R. H., 2003, *Yellow Smoke*. Lanham: Rowman & Littlefield Publishers, Inc.
- Simpkin, R. E., 1985, *Race to the Swift: Thoughts on Twenty - First Century Warfare*. London [etc.]: Brassey's Defence Publishers.
- Thornton, R., 2007. *Asymmetric Warfare*. Cambridge [etc.]: Polity Press.
- Tuck, C., 2008. Land Warfare. In *Understanding Modern Warfare*. New York: Cambridge University Press, 66 – 121.