THE LOGISTICS OF A PEACEKEEPING MISSION: A CASE STUDY OF WESTERN SAHARA

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Introduction

The present communication of results is the consequence of a broader conceptual frame. It is the product of a joint effort that converges with the attempt to better insert the Defense issues on the agenda of public policies (Migon 2011), to support the construction of an integrated agenda of research and discussion on these issues (Migon 2013) and to contribute to the strengthening of the Brazilian planning associated to Defense (Migon 2014). It also represents the dialogue and exchange of ideas associated with the reunion of individual researchers into the same research agenda (Visentini, Pereira and Migon 2014) which allowed the spillover of individual research (Migon and Santos 2013; Vaz and Migon 2013; Pereira 2014; 2016a; Visentini 2014; 2016a) into a collective project, with results that are progressively being perceived in the scope of defense studies (Ferreira 2014; 2015; Pereira and Migon 2014; Visentini et al. 2014), including abroad (Rodrigues 2017a).

1 The research on which the present article is based was conducted in the scope of the project The importance of Africa to the Security and Defense of Brazil, sponsored by the Álvaro Alberto Program of Incentive to Research into International Security and National Defense (Pró-Pandiá), a joint initiative of CAPES - Ministry of Defense.

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Still, as a conceptual framework, it should be emphasized that this brief text is convergent with the objectives of (i) strengthening the partnership between two graduate programs in the area of Defense, the Graduate Program in International Strategic Studies (PPGEEI/UFRGS - http://www.ufrgs.br/ppgeei) and the Graduate Program in Military Sciences (PPGCM/ECEME - http://www.eceme.ensino.eb.br), and (ii) to increase scientific disclosure in the Defense area, especially through the strengthening of the Meira Mattos Collection (http://portal.eceme.ensino.eb.br/meiramattos/index.php/RMM), of Austral: Brazilian Journal of Strategy and International Relations (http://seer.ufrgs.br/Austral) and of the Brazilian Journal of African Studies (http://www.seer.ufrgs.br/rbea).

In specific terms, it is worth to point out that this article represents the continuation of research efforts synthesized in a trilogy of articles4, which sought to inform about aspects of Brazil-Africa cooperation in matters of Defense (Ferreira and Migon 2016), as well as to provide a specific look at the dynamics of Security & Defense of Western Sahara (Ferreira and Migon 2015; 2017).

Thus, it is important to note that the Logistics of Peace Operations has great relevance for Defense and Military Sciences studies, for a number of reasons. Logistical planning and execution, normally conducted in harsh environments, as well as interoperability between military and civilian components from various countries of the world can bring diverse lessons. In this sense, it is worth noting that the peacekeeping mission in Western Sahara is the oldest active operation in the African continent.

The case of Western Sahara is the most recent and long-lasting case of unresolved decolonization on the African continent in the 21st century. A departure from the poorly run metropolis, the war waged between 1976 and 1991 and the longest intervention by the United Nations are part of the historical trajectory of the “last colony of the world” (Ferreira and Migon 2015). Thus, this article deals with the case of Western Sahara, studied from the perspective of Defense Logistics.

Western Sahara is a non-governed territory, currently under the custody of the UN, located in the northwestern portion of Saharan Africa. It is one of the most inhospitable and less livable places in the world, with arid climate and extreme temperatures ranging from 50 to 60 degrees Celsius in

4 The presentation of these results is linked to the organization of a book (Visentini, Migon and Pereira 2016) and to make the contents of the research results in the scope (Ferreira 2016; Migon 2016; Pereira 2016b; Rodrigues 2016; Visentini 2016b) available, as well as the cooperation of the research group with two PhD efforts based on the issue (Ferreira 2017; Rodrigues 2017b).
summer and falling to 1 degree in winter. The territory has land borders with Morocco, Algeria and Mauritania and is bathed by the Atlantic Ocean to the west (Rézette 1975; Pointier 2004; Estrada 2014).

The purpose of the case study is to analyze the logistics applied in the case of the Western Sahara peace mission, from three different perspectives: Morocco, Western Sahara and the UN Mission itself. To achieve the purposes of the present study, this article will be divided into sections, which aim to achieve the historical and conceptual setting of the issue, as well as the achievement of the case study itself. In the end, considerations will be made regarding the subject.

The Theoretical-Empirical Basis

The Issue of Western Sahara: A Historical Review

Spanish colonization in Western Sahara dates back to 1884 and occurred in the coastal region between Tarfaya, south of present-day Morocco, and Villa Cisneros, the current town of Dakhla, south of Western Sahara. Such colonization lasted until 1976, when Spain left the territory (Shelley 2004; Estrada 2014).

The borders of Western Sahara were defined by Spain and France in 1934. However, as of 1956, the newly independent Morocco proceeded to claim the territory, which culminated in confrontation, the war and a stalemate that lasts until the days (Rézette 1975). The UN-led decolonization initiatives began in 1965, when the organization declared Western Sahara a non-governed territory. As a result, there was the United Nations positioning in favor of decolonization and the exercise of self-determination of the Saharawi people, which should occur through a referendum (Pointier 2004; Shelley 2004; Estrada 2014; Ruiz Miguel 2014).

In 1973, a movement with effective leadership and well-defined political and military components emerged, called the Popular Front for the Liberation of Saguia el-Hamra and Río de Oro, also known as the Polisario Front (F Pol). From then on, this organization undertook a war against Spain (Pointier 2004; Shelley 2004; Estrada 2014).

In 1974, Spain was ready to hold the referendum and conducted a population census as a preliminary measure. The UN then asked the International Court of Justice for an opinion on the state of Western Sahara, which pointed out that neither Morocco nor Mauritania could establish any bond of sovereignty with the territory. The decision of the International Court of
Justice, contrary to Moroccan interests, prompted a reaction from the Moroc-
cean king, who on the same day announced that he would lead a “peaceful”
march of 350,000 Moroccans towards Western Sahara, an event known as
the “Green March”. This movement entered Western Sahara on November 6,
1974, supported by the Moroccan Royal Army and began the conflict with the
Polisario Front thereafter. On November 14, 1974, in the face of the climbing
of events, Spain quickly signed the so-called Madrid Agreement with Morocco
and Mauritania, which provided two-thirds of the northern territory to Moroc-
co and one-third to the south To Mauritania. The UN considered this agree-
ment null and carried in consultation only with part of the local leaders in
Western Sahara (Pointier 2004; Zoubir 2007; Estrada and Ricci 2012; Estrada
2014).

In 1976, it can be said that the war was already waged in two fronts by
the Polisario Front, a military-political component of Western Sahara, against
the Armed Forces of Morocco and Mauritania. This conflict provoked a large
exodus of refugees to the city of Tindouf, Algeria, outside the Sahrawi territ-
ory (Ammour 2006; Estrada 2014). On February 26 of the same year, the
Spanish colonial presence came to an end. Djemma, a sub-Saharan tribal ad-
visory council of leaders (“sheikhs”), created by the Spanish authorities, voted
for integration with Morocco and Mauritania. However, on February 27, 1976,
a group of former members of Djemma and other pro-Polisario sheikhs pro-
claimed the Sahrawi Arab Democratic Republic, with the leaders of Polisario
Front appointed to their government.

The war followed and, after three years of conflict, Mauritania, despite
its notorious military superiority, signed a peace agreement with the Polisa-
río Front, renouncing its supposed part of the Western Sahara after suffer-
ing considerable defeats and casualties in the clash with the polisario troops
(Zoubir 2007; 2010; Estrada 2014).

Between 1985 and 1988, the UN began to make greater efforts to ap-
pease the issue, when Morocco and the Polisario Front came to accept propos-
als from the UN and the Organization of the African Union (OAU) to resolve
the conflict (Zunes and Mundy 2010). The solution included conducting a referend-
um, through which the people of Western Sahara should choose be-
tween independence or integration with Morocco, as well as a cease-fire and
the creation of a peace mission. Both parties agreed, and on 6 September
1991 hostilities ceased. Thus, the United Nations Mission for the Referendum
in Western Sahara (MINURSO) was created, which has as main points in its
original mandate the creation of conditions for the holding of the referen-
dum, its proper conduct and the guarantee of the achievement of its results,
in addition to monitoring the ceasefire between the parties (Estrada and Ricci
Military Logistics

Logistics plays a key role in the success of military operations. To do so, it must be consistently planned and executed from the outset of the operation, as well as being synchronized with all planned actions, being inherently linked to joint and national logistics, or, in certain situations, to the logistics of multinational operations in which a country is participating. In all these situations, it must be meticulously coordinated to ensure that resources are made available to users at all levels (EME 2014).

The Logistics organization should provide the necessary support to sustain the forces in the continuity of operations, whether in a war or non-war situation as in a peace operation, for example. Therefore, this logistics should be guided by principles such as flexibility, adaptability, modularity, elasticity and sustainability (EME 2014).

In this way, Military Logistics is understood as the set of activities related to the forecasting and provision of the resources and services necessary for the execution of the missions of the Armed Forces. The logistic combat function encompasses functional areas of material support, staff support, and health support. At the strategic and operational levels, it conditions the planning and execution of operations, while at the tactical level it adapts to the planned maneuver to make it viable (EME 2014).

The logistic cycle is a permanent, continuous and ordered process in interrelated phases that organizes the support system. In accordance with the specificities of each of the Functional Areas, it comprises three phases: determination of needs, obtaining and distribution. The integration of the logistics chain through information systems from the consumer user to the source of procurement is fundamental for the accuracy and speed of the logistics cycle in all levels of Logistics execution, making it possible to increase the level of service to the supported force (EME 2014).

The operating environment can be characterized by long distances, difficult terrain, a hostile climate, and the lack of basic services and support from the host country. Meeting demands is therefore a complex and demanding process, requiring careful planning. The combat support service usually dictates the main aspects of the conduct of the forces involved in operations, being present from the beginning of the planning process and included in the reconnaissance. Whenever possible, units should be employed in operations with a minimum of armaments, ammunition, personnel,
organic transportation, communications, equipment and medical support, as well as sufficient reserve levels of all basic supplies to last at least 30 to 90 days (Wilkerson and Rinaldo 2008).

A Case Study in Analysis

The Logistics of the Royal Army of Morocco

The Royal Moroccan Army (RMA) is the first actor to be studied in this case. It is a professional armed force, well armed, equipped and motivated to carry out its mission. Since 1991, at the time of the ceasefire and the establishment of MINURSO, about two Army Divisions remained “frozen” on the ground in a static defensive position, with all units in the same place. This fact has a profound relationship with the way the logistics of the operation is conducted by RMA (United Nations 2007).

At the strategic level, RMA develops its logistics activities within the territory of Morocco and with its traditional suppliers. Much of the material is of European or North American origin. Its military expenditures showed a slight growth between 1988 and 2008, starting to have a slightly more significant increase since 2009. This relative constancy or soft growth occurs due to the impossibility of strengthening the units used in MINURSO’s operations area with personnel or material. In other words, since 1991, there is practically the same, or less, number of troops and armaments on the ground, all in line with the terms of the peace agreement. The increase since 2009 correlates with acquisitions or expenditures directed at its Armed Forces outside the area of operations of the peace mission, which may, and should, be used in case hostilities return (IISS 2015).

At the operational and tactical levels, logistics take place in a very peculiar way, given the impositions of the cease-fire. The reinforcement of troops is vehemently prohibited and all movement, even for maintenance or replacement of material or troops, takes place with authorization from the UN (United Nations 2007). Another very relevant condition is the desert and all the implications that stem from this.

As far as transportation is concerned, the area is poorly served by asphalted roads for the use of modal road. In 284,000 km2 there are only two paved roads and few side roads, which make up about 2,000 km of connections. These roads basically connect the area of operations from north to south and enter some of the operation areas of the Army Divisions. There is no modal ground rail and the modal waterway is limited to operate on the
coast, with restrictions imposed by the peace agreement. The air modal is used but it also suffers restrictions, imposed by the cease fire.

As for the personnel, there is an aeration plan that allows the military who work in rigid working conditions to leave the area of operations every 3 months. This aeration policy is fundamental for the maintenance of the good progress of the works, given the total isolation imposed by the mission and the inhospitable conditions of life of the soldier in the desert. The peace agreement imposes on both sides of the conflict that there is no reinforcement of personnel in the operations area.

Regarding health concerns, there are few hospitals in the area of operations. Most health facilities are concentrated in the town of Laayoune, where MINURSO headquarters are located, and there is a large concentration of RMA troops. In addition to that city, there are health soldiers scattered throughout the Moroccan units in the desert to support the troops more closely on the ground.

The maintenance of all material must be carried out on-site or outside the area of operations, but in this case it only occurs with UN authorization. Normally during monitoring of the ceasefire, UN patrols are responsible for monitoring the permanence of the material at each facility and if the non-existence of each item has been authorized by the organization. In relation to the supply, all of it arrives at the end of the line by the terrestrial modal. Even though there is the use of air and sea modalities, it is possible to reach the RMA units only by land.

Thus, one can come to the conclusion that the physical constraints imposed by the desert terrain and their implications, together with the impositions of the peace agreement, presents a series of obstacles and restrictions to the logistics in practice by the RMA, which are overcome in a day to day basis of the accomplishment of its mission.

The Logistics Applied by the Polisario Front

The Polisario Front (F Pol) is the political-military representative of the Sahrawi Arab Democratic Republic and will be the second actor to be studied in this case. It is a unique Armed Force that operates only in the terrestrial vector, because its country has neither Air Force nor Navy. It is poorly armed and endowed with obsolete equipment, all from the Cold War era. Regardless of that business card, its men are motivated and know the terrain very well.

At the strategic level, F Pol suffers from all restrictions resulting of
the fact that its country has no defined status in the international community. Although the African Union recognizes Western Sahara as a country, a part of the world’s countries does not see it like this. In most of the bibliographical sources, Sahara is a colony and, for the UN, the status of the country is still “non-governed” (Pointier 2004; Shelley 2004; Estrada 2014). With this, the weaknesses of national institutions or even their lack of existence means that there is no systematic formulation of Public Policies, although there is a pressing issue in the defense sector. It can be summarized that all F Pol’s logistical support comes from the government of Algeria, where most of the military means remains and the population lives nowadays, in refugee camps in the region of Rabouni (United Nations 2007).

At the operational and tactical levels, F Pol maintains a minimum operational base in the operations area of the mission, practically reduced to some military units and observation posts in the first line of defense against the Moroccan troops. Like these, their units were forbidden to move and receive reinforcements after the establishment of the cease-fire.

As far as transportation is concerned, there is only land use on desert trails, which are considered safe in relation to the threat of mines and explosives. There are no asphalted roads in the part of Western Sahara controlled by F Pol.

With regards to personnel, F Pol employs very young military personnel in its area of operations, who remain in critical conditions of permanence in the mission. There are no hospitals or health facilities in the area and all this support is provided in Algeria, near the refugee camps.

The maintenance of the Polisario material is carried out in the position and follows the same rules imposed by the UN. If it is necessary to remove certain material for maintenance outside the area of operations, the UN must grant authorization to do so. Correspondingly to the other functional groups, the supply usually comes from Algeria and is another critical item in the logistics implemented by F Pol in the MINURSO area. An example of this is the supply system of the Observation Points facing the Moroccan defensive line. These stations are operated by a pair of soldiers, who have a light vehicle, armed with some type of machine gun or anti-tank weapon and radio equipment, and who remain in position for a period of 3 to 10 days. As supply, these military men carry a small amount of water and one living goat and chicken, into position. In a first phase, the soldiers feed on the milk of the goat and the eggs of the chicken; and then slaughter the animals in poor hygienic conditions and consume the meat. At the end of this cycle, the military acknowledge by radio that they should be replaced.

Thus, it is concluded that the logistics applied by F Pol in MINUR-
SO’s area of operations, besides receiving the restrictions imposed by the desert and by the rules of the mission, presents serious structural deficiencies at the strategic, operational and tactical levels.

The Logistics Applied by MINURSO

The United Nations Mission for the Referendum in Western Sahara (MINURSO) is the longest-running operation on the African continent. This gives great expertise to the logistics component of the mission, both in its planning and execution.

Within the mission structure, logistical elements grouped under the civilian and military components of the mission can be identified, which determine the needs of all parts of the mission and obtain the means. Thus, a correlation can be made that the civilian logistic component performs the functions of the strategic level, through the Administrative Chief (CAO) and its members (budget section, finance section, personnel section, procurement section, procurement and contracts and the general services section), and the Technical Services Chief and its members (logistic support section, joint logistics operations center, communications section, surface transportation section, engineering section, aviation section). On the other hand, the operational and tactical levels are performed by the military component, through its Logical Command (CLO) and the 4th Joint Operations Center (JOC) and Team Sites, that are considered the “end of the line” of the mission or the “Plant floor” (United Nations 2007).

MINURSO explores transportation by all modalities, with many means, thus overcoming the restrictions imposed by the desert, the climate and the terrain. The aviation section has regular flights of fixed-wing and rotary-wing aircraft for a variety of purposes, such as transport of personnel, equipment, medical staff, aeromedical evacuation and operational recognitions, which are very important for monitoring compliance with various points of the peace agreements signed between the parties. The air modal is still responsible for the arrival and departure of personnel and material from the mission. The maritime modal is already partly responsible for the arrival of genders and other items for the mission. Finally, the road land modalities are very important for MINURSO’s operational missions, since most of the patrols of the operation are conducted by land.

Considering staff, there are very clear rules for staff turnover and re-completion is carried out in accordance with the rules laid down by each contributing country. The civilian personnel are hired or volunteer, being, in both cases, submitted to a selective process.
With regards to health, there is a military hospital within MINURSO’s headquarters, conducted by one of the national contingents of the operation. The structure of this hospital is modular and allows the accomplishment of several basic procedures. More complex procedures depend on hospitals located in Morocco, where there is a structure suitable for more complex problems.

The maintenance of the material is performed on the own Team Sites, by civilians hired for this, when it comes to the mechanical part of the vehicles. The other items, such as communication and computer equipment, are maintained at the headquarters and, for such a procedure, a patrol is conducted on a monthly basis from each Team Site for this purpose.

In relation to the supply, the acquisition is made by the civil component of the mission and comes from different parts of the world. A large part of the items comes from Morocco, due to the proximity and reduction of acquisition and transport costs. The exchange rate between the US dollar used by the UN and Moroccan local currency Dirhan also has a favorable role for the purchase of items in Morocco itself. However, other items come from the most distant parts of the world, such as chicken meat from the Brazilian company Perdigão.

Finally, it is concluded that the logistics applied by MINURSO bring together favorable aspects, which reduce the difficulties imposed by the conditions of the conduct of a peace operation in 284,000 km² of desert.

**Final Considerations**

Logistics has been present in wars, from antiquity to the present day. From its planning to actual execution, its systematic study is not as old as the war itself, but its importance was noted many centuries ago.

In summary, it can be concluded that the logistics of a Peace Operation assume unique characteristics, directly related to the environment in which it develops and to the actors that operate it. Nevertheless, each of the parties analyzed has been fully successful in conducting these activities and proof of this is the very duration of the mission.

It may be noted that in the case of the Western Sahara peace operation, the RMA, a Moroccan military ground component, applies the logistics favored by its condition as a country with a reasonable economic structure and with a constant priority for the Defense sector. As a result, the constraints imposed by the environment and the peace agreement are partially reduced through the application of flexible logistics, planned with forecast and carried
out in an integrated way.

It was found that F Pol, a military-political component of Western Sahara, applies survival logistics with maximum flexibility, but without conditions to apply principles such as forecasting and integration. These facts are due to the fragility or the lack of structures in the State that allow the conduction of appropriate logistics.

MINURSO has a very well-established logistics structure through more than 20 years of its mission. The integration of the civil and military logistics components, which allow planning and execution of a very efficient logistics, based on flexibility and forecasting, is particularly noteworthy.

Finally, the importance of logistics in achieving the objectives proposed by a peace operation must be reaffirmed. This importance enables the parties to devote themselves to the purposes of the UN, so that the organization can enforce the mandate items of each mission around the world.

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The logistics of a Peacekeeping mission: a case study of Western Sahara


ABSTRACT
This is a case study that reflects on the complexity of logistics activity in the context of a peace operation. A preliminary synthesis is made on the Western Sahara issue, as well as a brief theoretical review of the concept of Military Logistics. The logistics of the main participants of the conflict are analyzed: the Royal Army of Morocco, the Polisario Front and MINURSO. The approaches are essentially different: national logistics, “survival” logistics and international logistics.

KEYWORDS
Military Operations; Peace Operations; Logistics.

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