

The Brazilian Air Force's Role in the Stabilization Mission of the United Nations in Haiti

The Dependence on Strategic Transport Aircraft

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After World War II, the airplane was used as a means of transportation, humanitarian aid, and communication. It wasn't until 1938, however, on the eve of the World War II, that the British Royal Air Force first used transport aircraft for the movement of troops between theaters of operations. Such activity would later be known as strategic air transport and played an important role in the movement and replenishment of troops. The first and largest humanitarian aid operation in history, the Air Bridge for Berlin, occurred shortly after the end of that conflict.

Since then, transport aircraft have increasingly contributed in the wars that followed, creating logistical air transportation. Currently, military transport aircraft, in addition to carrying out actions to defend their own state, actively participate in various operations in support of international peace organizations. Military aircraft with large cargo capacity and ability to operate over long distances have become special vehicles for a nation's power projection.

The United States of America has four postulates in its air transport policy:

- The commercial airline fleet is the heart of the national air transport fleet;
- The role of the military component of the air transport fleet is to accomplish what commercial transport aircraft and/or civilian crews are not capable of;
- The military component must be equipped with aircraft specially designed for its role;
- Air transport operations represent a continuum that must be under the orders of a single operational administrative command (OWEN, 1997).

In Brazil, the same postulates have been adopted for its "transport aviation" (civil and military), since they are constituent elements of Brazilian aerospace power. This includes among other segments of society, civil aviation and the Brazilian Air Force (FAB). Additionally, the Brazilian Armed Forces are increasingly used as an instrument of the country's foreign policy. Due to its duties and responsibilities, the FAB needs to be equipped with multiple aircraft capable of carrying out different actions, with emphasis on logistical air transportation, which consists of using FAB means to move personnel and materiel to support military and/or government operations.

The same aircraft that fulfill logistical air transportation missions in support of the peace operations of the United Nations (UN) also have to simultaneously be able to fulfill missions in support of the FAB itself, other armed services, and Civil Defense, in the fight against epidemics, campaigns, and natural catastrophes. Thus, the FAB needs a diversified fleet of transport aircraft to meet the needs of the nation. The flights to Haiti, due to the

earthquake of 2010, are a clear example, since they happened in parallel to the logistical support needed for Brazilian troops already participating in that same country in support of the United Nations Stabilization Mission in Haiti (MINUSTAH).

Strategies for the achievement of national defense objectives, established by the National Defense Policy (NDP), are inevitably influenced by internal and external factors, such as economics, security, relations between states, and changes that occur to pre-established directives occurring throughout the period of a government. Independent of the country, economic factors force governments to redirect their priorities differently from initially planned (Rudzit and Casarões 2015, p.34) show that “the Defense Policy in Brazil can and should be conceived as a Government Policy.”

The differences between defense and foreign policy have been minimized by the recent creation of the Ministry of Defense and the publication of the Defense Policy and Strategy documents. This has served to strengthen the relationship between defense and diplomacy, and has encouraged the participation of the armed forces in international, humanitarian, and peacekeeping operations. Thus, since 2003, Brazil has tried to play a more active role in international relations, yearning for a vacancy in the UN Security Council (UNSC). With that goal and to demonstrate its leadership capacity, Brazil has assumed various international responsibilities following the peace mission in Haiti. Increasingly, Brazil needs to honor its commitments to international organizations well beyond the exercise of simple diplomacy, by the continued support of its military forces.

Participation of FAB in MINUSTAH

Brazil’s main participation in peacekeeping operations is through the MINUSTAH. Brazil is the largest contributor of troops to the mission, sending more than 9,000 soldiers, civilians, and officers to the country and maintaining at one point a contingent of 2,000 soldiers. Currently, it has about 1,430 military personnel and 10 policemen in the field. In March 2015, the UN proposed options for the replacement of MINUSTAH in 2016 with a smaller and more specialized mission, from 6,270 to 5,021. (BRAZIL, 2015b)

In peace keeping operations, the UN changes its contingents only once a year. However, Brazil, with the objective of obtaining the best performance of its military, providing the opportunity of the experience to a greater number of volunteers, avoiding troop burnout, disciplinary problems, and other undesirable situations, replaces its troops every six months instead. This policy was adopted since its first participation with troops in Operation UNEF I in the Suez Canal, in 1957. Brazil accomplishes this using its own Armed Forces, namely the Brazilian Navy and the FAB.

In order to do this, their aircraft, doctrinally, comply with logistical air transportation actions. However, it should be noted that it is not possible to think about MINUSTAH without considering the catastrophe that took place during the 2010 earthquake, which killed more than 100,000 people, including diplomats and military troops. Brazil, which had substantially reduced its forces for this mission, had to ramp up its FAB all of a sudden. The earthquake demanded a significant increase in the Brazilian military presence in Haiti. In the month following the seismic shock, the FAB set up a campaign hospital in Port-au-Prince, where it served 16,011 personnel, transporting food, medicines, and even drinking water. In addition to the Boeing KC-137 strategic transport aircraft and C-130 Hercules used in operation MINUSTAH, the FAB also used C-105 Amazonas and the C-99A. (BRAZIL, 2015c)

From 2004 to 2013, 158 missions were carried out by the KC-137 in support of MINUSTAH. With the decommissioning of the KC-137 in 2013, at the end of its useful life, the exchange of troops was accomplished by the C-130 Hercules. In agreement with the UN, the

replacement of contingents in 2014 and the beginning of 2015 were left in charge of the UN itself. For the second replacement in 2015, Brazil contracted a commercial airline company. This demonstrated the importance of the FAB owning long-range aircraft with large cargo and passenger capacity.

In MINUSTAH, from 2004 to 2014, 473 logistical air transport actions were executed by FAB transport aircraft, flying 9,703hrs, 50min each time, transporting 5,193,385 tons of material and 58,232 military passengers, police, and civilians. This air effort was distributed as follows:

- a) C-130 aircraft made more than 50 percent of the flights, even though they were not the largest aircraft in operation.
- b) C-105 aircraft were the least used, although their load capacity was practically double that of C-99A aircraft.
- c) C-130 aircraft flew more than double the missions flown by KC-137s and transported 66 percent of all cargo.

This operation was a great accomplishment for Brazil, as the C-130 aircraft fleet could have been heavily overloaded, thus risking the quality of the FAB's logistical air support in the MINUSTAH, during contingent replacements.

The Opportunity for Brazil and Its Aeronautics

Historically, Brazilian diplomacy made an effort to extend the country's participation in the international system and the recognition of Brazil as a world power.

The strategies to achieve that goal varied throughout history and in 2004 the intervention in Haiti was a good opportunity, since it was a regional action—focus of Lula's diplomacy—that did not refer to an immediate national interest and, in that way, it could even be justified by the principles of solidarity. (MATIJASTIC, 2014, p.15)

Among the numerous motives that led Brazil to send its troops to Haiti, one of them was to improve the country's status in the global geopolitical environment. The possibility of gaining a permanent seat in the UNSC is an old dream of Brazil, since the presidency of Getúlio Vargas. Brazil leading an international military mission under the aegis of the UN was a way to show its competence and capacity for regional leadership and its substantial support for humanitarian aid. MINUSTAH was seen as a great opportunity for the country to secure a fixed seat in the UNSC, although that effort has still not paid off.

Apart from demonstrating its humanitarian support by participating in MINUSTAH, this was an opportunity for Brazil to demonstrate deterrence power by logistically supporting its own troops. The challenges imposed on the FAB by providing logistical troop support through its transport aircraft also brought direct benefits for the improvement of its doctrine, its infrastructure, and its logistical system, as it demanded the best performance of its aircraft, crews, and maintenance teams.

It was an opportunity to operate in conjunction with other Brazilian Armed Forces, in addition to the implementation of new tactics, techniques, and procedures with friendly forces. It was also a great opportunity to further cement the relationship between the defense and foreign policies of the country.

Of the two bodies directly involved, the Ministry of Foreign Affairs and the Ministry of Defense, what has been noted is the use of the Armed Forces as an instrument of foreign policy, although decisions on the viability or otherwise of operations are taken by mutual agreement. In this case,

the interest of both have coincided: for one, to project the country as a great international agent and, for another, to promote opportunity in actions for which they were trained all their lives, but with few possibilities of being put into practice. (MIYAMOTO, 2008, pages 365)

In a special edition of the Igarapé Institute, where some reflections on the 10 years of Brazilian operations in Haiti are presented, Ambassador Antonio de Aguiar Patriota (2015), permanent representative of Brazil to the UN, stated that:

for Brazil and the Brazilians who discovered Haiti in the last ten years, military or civilians, the experience in MINUSTAH has been a two-way street, for its valuable assistance to the country, recognized by the international community and by the UN Secretary General, and also by the priceless professional learning and the gratifying human experience. (PATRIOTA, 2015, p.5)

By understanding that increased participation in the UN increased the country's international projection, looking to secure a seat in the UNSC, as well as for the greater reapproachment with Latin America and with the Community of Portuguese Language Countries, and its concern with development and peace, for Diniz (2005: p. 99), it was "almost perfectly consistent with the recent trajectory of Brazilian foreign policy" for Brazil to participate in the MINUSTAH.

In addition, Haiti would be a unique opportunity for Brazil to not only demonstrate a greater commitment to UN Peace Operations, but also to reaffirm and legitimize leadership in its region ... also taking into account economic relations. (REZENDE, 2010, p.101)

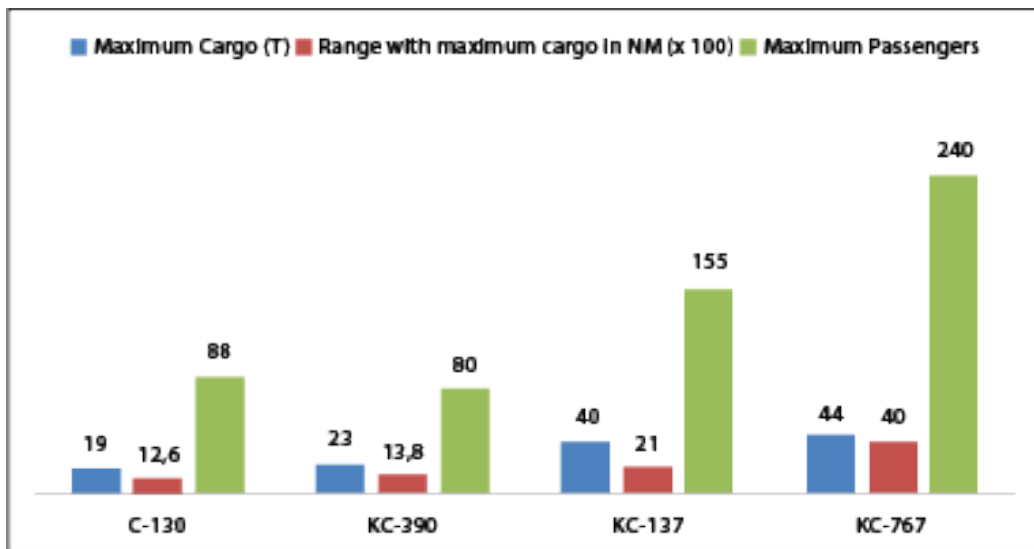
From this point of view, Brazilian participation and leadership in MINUSTAH can open an important and significant precedent for Brazilian diplomacy. It may be that there is an additional inflection of Brazilian foreign policy (DINIZ, 2005: 102).

The actions of the FAB supported the participation of Brazilian troops in MINUSTAH and demonstrated its capacity and competence at the international level, which can be translated into a certain degree of deterrent power of the air force itself, the Armed Forces, and Brazil in its entirety. The effects for Brazilian foreign policy, derived from the employment of the Brazilian military power in Haiti, especially the FAB, in the medium and/or long term, have the following possibilities:

- Participation in future peace operations within the scope of MINUSTAH, or in other humanitarian aid actions, by virtue of the positive results achieved by Brazilian troops, made possible, among other factors, through the logistical air transportation actions of the FAB's aircraft, crews, maintenance personnel, and infrastructure;
- Brazil achieving the long-awaited status as a permanent member of the UNSC; and
- A natural intensification of Brazilian regional leadership and strengthening of its national position with respect to multilateralism and international law, providing Brazil with an outstanding position in major international forums, particularly in the UN.

A Strategic Transportation Aircraft

As already stated, the FAB needs to have a diversified fleet of transport aircraft that accounts for its existing airport infrastructure and the varied missions that the fleet is assigned. Namely, it needs aircraft for tactical and strategic long-range employment to meet the needs of the nation.



Source: The author (research data)

Figure 1. Comparison between the major transport aircraft of the FAB in MINUSTAH and its possible substitutes

In the case of catastrophes and natural disasters in other countries, Brazil strives to provide humanitarian aid, almost always being one of the first nations to get involved. Bringing the Brazilian flag to distant countries is also a form of power projection.

It stands to note that Brazil, in all the peace operations it has participated in with troops, has assumed the commitment and responsibility for the logistical support of its own military, police, and civilians. To accomplish this, the FAB made use of long-range strategic transport aircraft, within their technical limitations. For the most part, the following four-engine aircraft were used: B-17, C-54G, C-130, and KC-137.

Concomitant to the flights in support of MINUSTAH, there are many examples of humanitarian aid missions carried out by the FAB's KC-137 aircraft throughout the world: two for Thailand in support of tsunami victims; transportation of vaccines and medicines for Peru; donations for hurricane victims in Guatemala and earthquake victims in Pakistan; fourteen flights for the rescue of Brazilians in Turkey, veterans of the war in Lebanon; and fifteen missions for Haiti itself, in support of the victims of the 2010 earthquake. Two other important logistical air movements in support of international security, the use of the KC-137 from 1991 to 1997 in 26 missions to support Brazilian troops that took part as peace forces in Angola; and from 2001 to 2005 in 17 missions to support of Brazilian troops in Peace Operations in East Timor. (RIBEIRO, 2015, pp. 58-59)

With the total decommissioning of the KC-137 fleet, logistical air transport needs were taken care of with the C-130 Hercules aircraft, currently the largest FAB transport aircraft, albeit with half the cargo and passenger capacity of the KC-137 (see comparison in figure 1). In addition to this limiting factor, most of its fleet is also in the final phase of its useful life. These aircraft are expected to be replaced by modern KC-390s which are under development and manufacture by Brazil's own aircraft manufacturing company, Empresa Brasileira de Aeronáutica SA (Embraer), with expected delivery initially planned for 2016 but postponed to 2019. However, these aircraft are designed to meet tactical, non-strategic needs, as they were designed to replace tactical C-130 aircraft.

In 2008, due to the KC-137's high maintenance costs, excessive fuel consumption, operating noise levels higher than the legal limits of many countries, with end of its useful life in sight, the FAB started searching for a suitable replacement. However, it was not until 2012 that the Brazilian government decided to initiate the process of replacing the aircraft. The situation transitioned to an immediate need with the accident and total loss of a KC-137 in a support mission to MINUSTAH in 2013, which permanently grounded the fleet in October of the same year (RIBEIRO, 2015, page 58).

The replacement project, in which Boeing, Airbus Military, and Israel Aerospace Industries Ltd. (IAI) participated, was called KC-X2. On 13 March 2013, the KC-X2 project commission chose IAI as the supplier of the new aircraft. According to the Commander of Aeronautics, the project is considered a priority, and the signing of the contract for the acquisition of the aircraft is pending government approval (BRAZIL, 2015d).

The model chosen as the new strategic transport aircraft was designated KC-MMTT (Multi Mission Transport and Tanker), see figure 2, containing a wide range of equipment and systems that may be installed on the platform of a model Boeing 767 300ER—Extended Range (RIBEIRO, 2015, page 58).

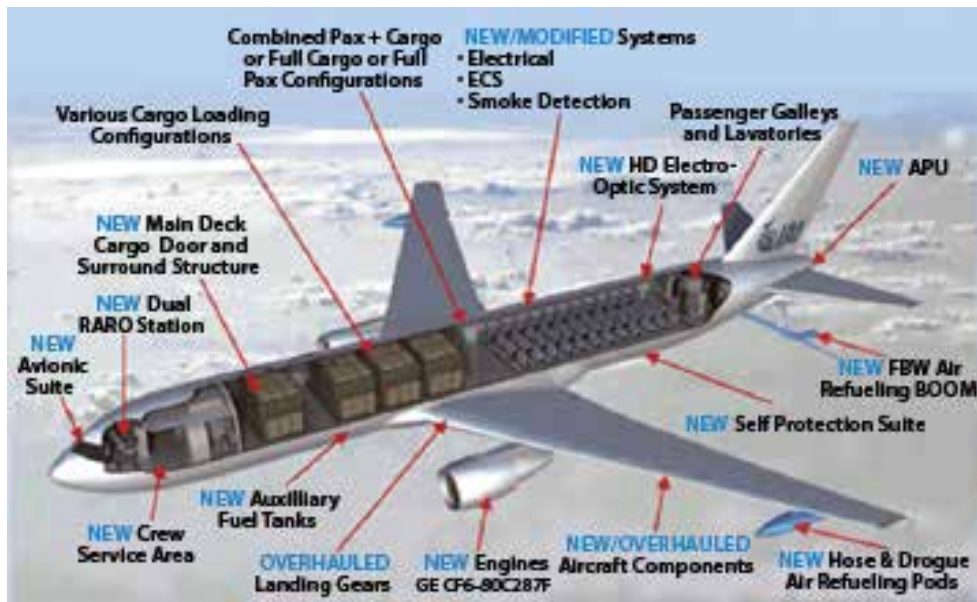
The first Boeing 767 aircraft, converted to the MMTT standard, is already operational in Colombia. During operation *Crusex 2013*, it was flown by the Brazilian 2nd/2nd Transportation Group, which operated the KC-137, where I experienced the opportunity to accompany the operation of the KC-767. The aircraft spent two weeks in the Recife Air Base, during which it carried out in-flight refueling operations with Colombian and Brazilian fighters (RIBEIRO, 2015).

Figure 1 compares the capabilities of the largest FAB transport aircraft, which operated in MINUSTAH, C-130 and KC-137, with their possible substitutes, the KC-390 and the KC-767, respectively.

Although the KC-390 and KC-767 are not yet operating in FAB, the following can be deduced:

- a) KC-390 is capable of transporting about 21 percent more than the maximum load of the C-130.
- b) KC-390, under maximum load, has a range of 9.5 percent above the C-130.
- c) KC-390 transports 10 percent fewer passengers than the C-130 aircraft.
- d) KC-767, at maximum range, can transport up to 10 percent more than the KC-137.
- e) KC-767, with 10 percent more than the maximum load of KC-137, can have double the range of the KC-137.
- f) KC-767 can transport up to 85 more passengers than KC-137, the equivalent of a C-130 aircraft more passengers.
- g) KC-767 has a passenger transport capacity three times greater than the KC-390.
- h) KC-767 has a range approximately three times greater than the KC-390.
- i) KC-767 has a maximum load capacity, with maximum range, two times greater than the KC-390.
- j) KC-767 has a maximum load capacity, with maximum range, two to three times greater than the C-130.
- k) KC-767 has a range approximately 3.17 times greater than the C-130.

According to data from the 2nd/2nd Transport Group, the aircraft will have an operational cost approximately 45 percent lower. The range of the KC-767 with 43.8 tons of cargo is 4,000 nautical miles, which is equivalent to a direct flight from Brasilia to Portugal or Spain, without stopovers. The KC-767 will have the capacity to fly from Port-au-Prince, in Haiti, to the city of Porto Alegre, in Rio Grande do Sul, without stops, transporting 47.6 tons of cargo; and from London to Rio de Janeiro, with 32 tons (RIBEIRO, 2015).



Source: Israel Aerospace Industries

Figure 2. Overview of the B767 MMTT program offered by Israel Aerospace Industries

In addition, because it is a “multimedia” aircraft, it will have other possibilities for operational use, highlighting the capability to refuel three combat aircraft simultaneously in flight, in addition to another KC-767. In an interview with “Revista Tecnologia e Defesa,” on 18 June 2015, the Commander of Aeronautics, Lieutenant-Brigadier of the Air Nivaldo Luiz Rossato, made the following statement:

FAB and the Ministry of Defense understand the importance of that plane. The aircraft has a large cargo capacity that will help us in peace missions, such as in Haiti and Lebanon. In addition to missions like the one we did in 2005, when there was a repatriation of Brazilians from Timor. (ROSSATO and PLAVETZ, 2015, p.1)

The Boeing 767 also has many operational differences with respect to the other two FAB cargo aircraft, the C-130 Hercules and its replacement in the near future, the KC-390. “The C-130 is different, it is tactical and restricted in scope, it flies lower and at a slower speed, another difference is refueling in flight as the 767 can match the cruising speed of other aircraft,” explains Lieutenant-Brigadier of the Air Nivaldo Luiz Rossato (PLAVETZ, 2015, p.1).

While the purchase contract has not yet been signed, the 2nd/2nd Transport Group, Corsair Squadron, former operator of the KC-137, is preparing to receive the new fleet. Ten pilots completed the training course on Boeing 767 transport aircraft. FAB aviators took theoretical classes, performed simulator exercises, and completed 150 flight hours. Three of them reached the qualification as instructor pilots. The training, which was possible thanks to an operational training contract with ABSA-TAM Cargo, a national company that uses the model, started in December 2013 and ended in early 2015 (RIBEIRO, 2015, page 60).

An initial contract between the IAI and the Brazil Aeronautics was signed at the beginning of 2014, but it had to be delayed due to the presidential elections in October, in order to comply with electoral legislation. Currently, the parties must formalize the contractual details, which

includes the conversion plan. The project foresees that the first aircraft will be converted in Israel, the other two in Brazil, by the TAP Maintenance and Engineering Brazil, in Porto Alegre-RS (PODER AÉREO, 2015).

Whereas the capacity of the transport aircraft fleet of the FAB, which in the last 40 years has provided the bulk of logistical support, allowing for participation in Operation MINUSTAH from 2004 to 2014, and the limitations of the KC-390 aircraft, future replacement for C-130 aircraft, to meet the capabilities provided by the KC-767, as the potential replacement for the KC-137, presented in figure 1, it concluded that the current C-130 aircraft fleet, alone, will not be able to support all the efforts made by the KC-137 aircraft in a new operation on the scale of MINUSTAH; that KC-390 aircraft, because they were designed only as a replacement for the C-130 fleet, will not have that capacity either; then only a fleet of long range strategic transport aircraft with large cargo capacity, will be able to provide FAB to provide logistical support for Brazilian troops in future peace operations, at the level and complexity of MINUSTAH.

Conclusions

The Brazilian military must simultaneously meet two requirements: the capability to guarantee the security of the country itself and a surplus of military power to meet international requirements in support of peace.

Since the first participation of Brazilian troops in peace operations in 1957, Brazil chose to support its own troop movements and logistical support, being the only country in South America to adopt this self-sufficiency position. Since then, the FAB accomplished this using long-range, mainly four-engine, strategic transport aircraft. As of 2013, as a result of the operational grounding of its KC-137 strategic transport aircraft, the FAB has encountered difficulty honoring this international commitment.

The air forces of countries with international responsibilities depend on strategic aircraft capable of transporting large quantities of personnel over long distances. Logistical air transport of personnel and material is an example of an essential task for a country like Brazil, a regional leader, frequently involved in activities such as those requested by the UN.

MINUSTAH can be considered a great opportunity for the country to secure a fixed seat in the UNSC. In MINUSTAH, in just the period from 2004 to 2014, the FAB transported 21 contingents, made up of the Brazilian army, Brazilian navy, and the FAB itself, in addition to police and civilians.

In 2008, with the end-of-life perspective of KC-137, the FAB began studies to choose an aircraft that could replace it, but the situation became an immediate need with the accident and total loss of a KC-137 in 2013, which resulted in the decision to mothball the fleet. The replacement project, called KC-X2, identified and selected the Boeing 767 ER strategic transport aircraft, called KC-MMTT, as its replacement. The signing of the purchase contract for the aircraft, however, has not yet occurred.

Understanding that defense policy can and should be a government policy, that the decision on public spending is the responsibility of the elected government and that the economic, national, and international environment calls for abrupt reduction in expenses, it is of note that Brazil Aeronautics and the FAB continue to await a government decision to purchase strategic transport aircraft, which, in the interim, limits Brazilian participation in new peace operations to only regional actions.

In understanding Brazil and its armed forces' fulfillment of national objectives as per National defense and foreign policy, it is important to note that during participation in MINUSTAH from 2004 to 2014, the FAB depended on the KC-137 strategic transport aircraft; and that after

the departure of the KC-137 from MINUSTAH, Brazil has been left without a comparable capability, which has hindered its position in the environment of nations. □

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