

BLUE AMAZON: THINKING THE DEFENSE OF BRAZILIAN MARITIME TERRITORY¹

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“Brazil has a true “Blue Amazon”, for which, undoubtedly, has rights, but also has obligations to know it and exploit it economically, rationally and sustainably. Consequently, the untold riches of the marine space under national jurisdiction also require a Naval Power able to protect them.” (Carvalho in LEPLAC 2010)

Introduction

Brazil, with almost 7500 kilometers of Atlantic coastline, is a country directly concerned about the developments related to the Atlantic Ocean. Thanks to the archipelagos of São Pedro e São Paulo and Trindade e Martim Vaz, mainly the first one, Brazil’s maritime border advanced a lot in the direction of Africa. The São Pedro e São Paulo archipelago lies 1010 km from the nearest point of the Brazilian Coast and 1824 km from the African coast (Viana 2009, 55).

In the last few years the Atlantic Ocean, which since the beginning of colonization played a key role for Brazil, has become even more crucial to the country due to the natural resources that are located in the Exclusive Economic Zone (ZEE, initials in Portuguese) and in the Continental Shelf (PC, initials in Portuguese). These concepts were defined by the United Nations Convention on the Law of the Sea (UNCLOS) in 1982 and became crucial after the discovery of

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huge deposits of oil and gas in the deep ocean. (Martins 2010, 84-86; Assad 2010, 49-50).³

However, despite the fact that 80% of the Brazilian population lives near the coast, the importance of the Ocean has not been commonsensical in Brazil. Especially during the twentieth century, the main concern was ensuring the occupation of the whole territory with its continental dimensions, encouraging settlement and economic activities in the west, and defending the boundaries of the country. The decision to build a new capital city, Brasilia, inaugurated in 1960, at the center of the country, was an emblematic expression of this strategy. There is much attention directed to the Green Amazon and its natural resources, but not to the riches of the sea, which are at least, if not more, as diverse and important for the development of Brazil.

For this reason, in 2004, the Navy of Brazil launched the concept of “Blue Amazon”, which became a trademark in 2010. To emphasize the importance of the sea, the Ministry of Education, in collaboration with the Inter-ministerial Commission for Sea Resources (CIRM, initials in Portuguese) has produced two books: *The Sea in the Brazilian Geographic Space*, and *The Importance of the Sea in the Brazilian History*, published in 2005 and 2006, respectively.⁴ Almost 180,000 copies of each book were distributed to institutions of elementary and secondary education. However, in Brazilian atlases later published, there were no references to Blue Amazon, neither to several of its archipelagos.⁵ But it is not only to alert the Government or the public about the importance of the Blue Amazon: the Navy of Brazil also needs to be prepared for new challenges, able to protect all these riches.

This study seeks to analyze the rationale behind the creation of the concept of Blue Amazon and its consequences for Brazil, especially in terms of

³CNUDM was established in 1982, and more than 156 countries have ratified this convention. Brazil has signed it in 1982 and ratified it in 1988. The U.S. have signed but not ratified the convention, as evidenced by the Brazilian Navy. For definitions of the concepts according to CNUDM see, for example, Souza 1999.

⁴“O Mar no Espaço Geográfico Brasileiro,” *Coleção Explorando o Ensino* 8. Brasília: Ministério da Educação, 2005; “A Importância do Mar na História do Brasil.” *Coleção Explorando o Ensino* 13. Brasília: Ministério da Educação, 2006.

⁵Research carried out in several major bookstores in Brazil in the first half of 2011.

security, in particular for the Navy of Brazil, the country's role in the South Atlantic and its relations with West Africa.

Blue Amazon

The term "Blue Amazon" was created to call the attention to the immense riches of the oceanic area under the Brazilian jurisdiction. This area covers a ZEE of 200 nautical miles, with a surface of 3,539,919 km², while the PC is up to 350 nautical miles, corresponding to 960,000 km². If added, they cover 4,499,919 km², or almost 4.5 million km², which aggregate a maritime area equivalent to more than 50% of the total area of Brazil. In 2004, the Brazilian government presented its first proposal pleading the recognition of the PC to the Commission on the Limits of the Continental Shelf (CLPC) of the United Nations.⁶

After negotiations with the CLPC, a more robust proposal was presented by the Brazilian government in March 2007. In April of the same year, the Commission responded not accepting 19% of the Brazilian claim. That is why a Revised Proposal Outer Limit of the Brazilian Continental Shelf is being prepared. In the meantime, back in 2010 the CIRM drafted the Resolution 03/10 assuming the right to evaluate requests for research "on its PC beyond 200 nautical miles" (More 2010). However, this resolution only seems to confirm the statement made by the Government of Brazil in 1982, when it signed the United Nations Convention Law of the Sea: "I. Brazil makes use of its sovereignty rights over the continental shelf, beyond the distance of two hundred nautical miles from the baselines, up to the outer edge of the continental margin, as defined in article 76." (Declarations or Statements upon UNCLOS ratification; More 2010)

It is expected that in 2012 the CLPC would give Brazil a proper answer about the remaining 19% of the PC. This response is crucial because the recommendations of the CLPC establish "definitive and mandatory" limits according to the article 76.8 of CNDUM (Silva 2011, 117). For now, some definition of the Commission is anticipated. In the meantime, even the 81%

⁶It was the second country to present a demand for recognition of the PC, after Russia, according to the law of UNCLOS. <http://www.mar.mil.br/secirm/leplac.htm>.

over which the Commission has manifested no objections are not defined as an official part of Brazil's PC.

Right now, oil and gas within the ZEE are explored, and there are other exploitable areas within the ZEE as well. However, the natural resources extend to the PC. It is in the PC, for example, that huge amounts of oil and gas in the pre-salt were discovered. On the other side of the Atlantic, in Africa, oil and gas were also discovered in the pre-salt layers. These similarities in geological formation are not a strange fact since Brazil and Africa were part of West Gondwana. Petrobras is developing activities in Africa, including the pre-salt areas in Namibia and the Republic of Gabon (Izundu 2009; Martin et al. 2009; *Pre-sal.info* 2011; Godoi, 2011).

Nonetheless, the main activities of Petrobras are concentrated in Brazil. For decades, Brazil had deficiencies in the production of oil and gas. Thanks to fodder at sea, the country became more than self-sufficient in oil and will soon be in gas, which it still imports, even if only partially. Now, with the discovery of large reserves of oil and gas in the pre-salt layers, the country is becoming a major world producer of oil and must become one of the ten largest in the world. There are some technical challenges to face, though (Caroli 2010, 125-128). As for the gas, Brazil not only will become self-sufficient but will also become an important exporter in a few years.

There are also other raw materials to be exploited in the bottom of the Ocean, in the ZEE and possibly on the PC, such as polymetallic nodules containing manganese, nickel, copper, and cobalt; and polymetallic sulfides containing iron, zinc, copper and other types of metal. With the growing demand for metals and minerals and rising prices for these materials, interest in learning more about the resources in the deep sea and explore what is economically viable is growing (Martins 2006, 125-131).

Another sector that deserves to be developed is fishing, both in the Ocean, along the coast through aquaculture production, and in freshwater. It requires a much greater knowledge about the natural resources in the Ocean and the possibilities of developing fishery in a sustainable manner. Unfortunately, biodiversity of the Ocean is still poorly researched and recorded. In any case, it must be protected and, therefore, the toxic pollution and waste avoided. Many vessels were already caught in the act spawning polluted ballast.

One of the actions of the Navy is exactly trying to prevent illegal evictions and other violations in waters under Brazilian jurisdiction.

Nonetheless, the research to be done goes well beyond biodiversity. The oceanographic studies in Brazil began in 1934 and were strengthened after 1946, but they really got momentum only in the late 20th and early 21st centuries. The CIRM has played a key role in this context once it aims to coordinate the National Policy for Sea Resources (PNRM, initials in Portuguese), where the marine research, technology and science to be promoted are detailed (República Federativa do Brasil 2005a). It was in this context that in November 24, 2011, a ship left Rio Grande to Cape Town with sixteen researchers from five universities on board with the mission to understand the role of oceans as absorbers of atmospheric carbon dioxide (*Rota Marinha* 2011)⁷. The participation of the CIRM in a meeting in Fortaleza in 2007 where course surveys, research projects, and problems related to personnel workload were discussed, was also indicative of the growing importance of sea related issues to the country. Indeed, due to the increasing importance of the sea to Brazil, the country must be able to train professionals and other scholars of the highest level (Krug and Santos 2007).

Two research projects deserve special attention: the research centre established in the São Pedro e São Paulo Archipelago in 1998, and which is supported by five Ministries. Researchers take turns continuously in the archipelago so that it is inhabited, otherwise it would not be permitted to establish a ZEE around it. The geological formation of the archipelago is very peculiar, because it is a complex of plutonic rocks with sedimentary ones, and not of volcanic type (Viana 2009, 11, 55-63). Brazil also wants to establish an oceanographic laboratory at sea, a project of three Ministries: Defense, Science and Technology, and Environment, in order to deepen the knowledge of the sea, especially in the areas of environmental safety, the development of naval technology and biotechnology, and the establishment of an underwater observatory (Maltchik and Oliveira 2011).

⁷The researchers are linked to the Universidade Estadual Rio de Janeiro, Universidade Federal Rio de Janeiro, Institute of Oceanography of the Universidade Federal de Rio Grande, Universidade Federal de Santa Catarina, and the Center for Marine Biology of the Universidade de São Paulo.

However, for the country's economy, the Ocean plays another key role: in the transportation area, which it goes well beyond the Blue Amazon: 95% of international trade, exports and imports, is done by the sea. The Navy Commandant, Fleet Admiral Roberto de Guimarães Carvalho, considers the enormous dependence on maritime traffic a large vulnerability for the country, since any interference in the sea free transit could have very serious consequences for the economy, including bringing it to "collapse" (Carvalho 2004). Moreover, only 3% of this transport is operated by the Brazilian Merchant Shipping. Major investments in this sector are needed to reduce the use of foreign ship owners, which has a negative weight in the country's trade balance. Other substantial investments are needed to modernize the ports of Brazil that cannot be as competitive as the major ports of the world (Vidigal 2006, 103-119). It is clear that, for the economy, the dependence on the Ocean is enormous and that it will become even greater with the development of the immense riches that lie in the Ocean or in its bottom.

Aspects of security and the role of the Brazilian Navy

There is no doubt that these natural resources have to be protected. But, in the Blue Amazon, the jurisdictional limits of waters are just imaginary lines over the sea, which are not physically demarcated, as it is the case when on the ground (Carvalho 2005, 19). Thus, heavy investments are needed if the Brazilian Navy is to exercise control over such waters and have the deterrent power, if necessary. In December 18, 2008, the Brazilian government published the National Defense Strategy (END, initials in Portuguese), which determines which actions the Armed Forces must take to be capable of defending the country and support its development (República Federativa do Brasil 2008). The Government recognizes that there is a tradition in Brazil as far as the country's defense is concerned, since the country was involved in few wars and, after the borders' demarcation, has no confrontations with its ten neighbors whatsoever. Brazil has always had a peaceful vocation and has not needed to pay much attention to defense, but this is possibly changing (Peixoto 2010, 155-165). If the country, which became the sixth economy in the world in the end of 2011, wants to play a role in the development of the world, its defense has to follow the path of its growth. The operation of the Armed Forces – Navy, Army and Air Force – has to be rethought in the long run. To become more effective,

the Armed Forces must establish a united staff and more systematically coordinate the operations of the three forces. It is necessary to go far beyond sporadic operations involving the three forces. What is needed is reaching the cooperation among the three forces in order to increase their effectiveness and power to (re)act quickly. The Armed Forces must be organized “*under the aegis of the triad monitoring/control, mobility and presence*” (República Federativa do Brasil 2008, 4). This organization can take place while work on the modernization and development of the Armed Forces, which will require heavy investments, is done.

A key priority is to maintain the sovereignty of the (green) Amazon Region. No organization or individual action, possibly serving foreign interests, may infringe the country’s sovereignty: “the Green Amazon will be developed by Brazil” (República Federativa do Brasil 2008, 10th directive).

On the other hand, the military integration in South America have to be encouraged, particularly the industrial and defense bases, to get to the construction of the South American unity, without the participation of foreign countries in the region (República Federativa do Brasil 2008, 18th directive). The government probably makes reference to the U.S. military presence in Colombia and Paraguay, near the Triple Frontier, among others, and the British presence in the Falkland Islands (Sousa and Soligo 2011). The integration could also prevent possible conflicts in the region and reduce tensions between neighboring countries in the Andean region (República Federativa do Brasil 2008; Villa 2010, 91-114). On the day of her inauguration as the President (January 1st 2011), Dilma Rousseff spoke to her Colombian counterpart and invited Colombia to become a partner of MERCOSUR. This became unlikely after the formation of the Pacific Alliance in the same year, whose free trade agreement was signed among Chile, Colombia, Mexico and Peru in 2012. Concerning the Falkland Islands, Brazil, as much as the other MERCOSUR and South American countries, supports the Argentinean position, through the Union of South American Nations (UNASUR) and the newly formed Commonwealth of Latin American and Caribbean.

The relations between Argentina and the United Kingdom became more strained after the repeal by President Néstor Kirchner cooperation in the Special Cooperative Area, established by President Menem, which included the

prospect of natural resources in the sea, including oil. The growing British investment in oil exploration after 2012 made the issue even more serious, with actions of both countries' Navies and claims by the Argentinean government to the CLPC and the Secretary General of the United Nations on the Falklands. Indeed, the dispute between the two governments is not limited to the Falklands, but the conflict has worsened now that the British government also wants to extend the continental shelf not only of the *Malvinas*, but also of other islands in the South Atlantic and the seas around Antarctica. Thus, both countries are claiming areas that partially or totally overlap (Dodds and Benwell 2010; International Boundaries Research Unit 2010). The resolution of this question seems urgent, although it is unlikely to be solved in the short term in a satisfactory way to Argentina. In the meantime, through a solidarity act to the Argentine ports, ships with the flag of the Falklands cannot anchor in the ports of other MERCOSUR countries, a symbolic decision, since there would be no problems if a different flag was displayed. However, if the Argentinean government decides to take military action, it could have much more serious implications to the members of MERCOSUR and UNASUR. The Argentinean government thinks that the British presence is a "relic of colonialism", a remnant of the old international order, and that the UK is stealing non-renewable resources of Argentina (Dodds and Benwell 2010, 578-579).

The about case is illustrative of much riches is being discovered and exploited in the South Atlantic in recent decades and how it involves security issues that are not limited to these two countries. The Brazilian Navy is quite aware of the number of British islands located in the South Atlantic. Besides the Falklands and its strategic position, the Ascensão Island allows the control of maritime traffic, since it is located at the narrowest point between the Northeast of Brazil and the West African coast (Abreu 2010).

It is thus understandable the key role played by the Brazilian government in intensifying, expanding and diversifying the integration process in South America. Among the various existing plans, it can be stressed the Initiative for Regional Infrastructural Integration of South America, launched in Brasilia in the year of 2000, which is a very ambitious project for the development of the regional infrastructure of transportation, energy and communication in South America. Among the many projects a road between the Atlantic and the Pacific oceans is planned, besides several smaller

waterways. The physical integration of the region is considered one of the priorities for the Brazilian government. In 2009, in order to strengthen this aspect, the UNASUR's Coordinating Committee of the South American Council of Infrastructure and Planning (COSIPLAN) was created. Its first meeting took place in 2011 in Rio de Janeiro, and the projects prioritized were those directly related to the development of the region for the next 10 years. Besides the infrastructure, energy is another sector that receives special attention within UNASUR. Another important proposal and Brazilian initiative is the establishment of the Council of South American Defense, which integrates the security Ministries from 12 countries and was approved in 2008. This Council has several goals: the development of common defense policies, the integration of industrial and military equipment bases, and the conducting of joint military exercises (Villa and Viana 2010, 99-110). Indeed, it is worth noticing the number of initiatives being developed under the auspices of UNASUR, established as recently as 2004, and whose constituent treaty of 2008 entered into force in 2011.

The importance of energy resources is also emphasized in the EDN, because, as a first priority for the Navy, the proactive defense of oil platforms and, more generally, the areas of oil production at sea are mentioned. The second priority is to defend the Brazilian jurisdictional waters and its territory, including islands, archipelagos, maritime coast and rivers. The mouth of the Amazon River deserves special attention. Concerning the Atlantic, the field of action of the Armed Forces is not only limited to the Blue Amazon, but it also covers the South Atlantic, one of the main areas in which defense issues were taken into account (República Federativa do Brasil 2008b). Finally, in the 2005 National Defense Policy (República Federativa do Brasil 2005a) it was already mentioned several times how much the South Atlantic is of great strategic importance to Brazil and why it is a priority for the National Defense (República Federativa do Brasil 2005b). It is interesting to notice that, in the 2005 PDN, the Blue Amazon appears once, while it was not even mentioned in the EDN.

The PDN is a fundamental document that defines what is expected of the Armed Forces in general and of the Navy, in particular. The Navy must defend the Atlantic region, with the support of Naval Aviation and Air Force.

To fulfill this role, the presence of the Navy must be modernized and increased. Together with the fleet located in Rio de Janeiro, the creation of a second fleet in the North/Northeast of the country is considered necessary, due to the special attention paid to the mouth of the Amazon River. Each fleet will have its own aircraft carrier, a variety of ships in different numbers, including multi-purpose and logistical ships, and an amphibious division. All these details are defined in the Plan of Articulation and Equipment of the Brazilian Navy (PAEMB), which stems from the EDN and provides the guidelines for the PAEMB between the years 2011 and 2030, including projects of short, medium and long terms, with a funding that must be substantial to allow improvements and an increase of the current equipment of the Navy. In addition, the modernization project should not end in 2030, but to be extended until 2047, at least (Mendonça 2011, 151-162). Moreover, when studying the time needed for the desired equipment planned by the Navy to be acquired in order to defend Brazil in case of need, one can only agree with Rui Barbosa who used to say that “fleets are not improvised.”

The PAEMB is part of the Plan of Organization and Equipment of the National Defense, which has yet to be approved by the Congress to become a state policy. The problem is that the defense is not a priority and therefore the budgets are not adequate (Pesce 2010; id. 2012). This has to do with the peaceful vocation of Brazil and the absence of enemies against which the country has to be defended. Another factor which helps to explain the reluctance of the Congress to make available greater sums of money in Defense is the fact that Brazil had a military regime for about 20 years (1964-1985) and with the return of democracy the Armed Forces lost space. Thus, over a long period, the defense budget in Brazil has been 1.5% of Gross National Product (GNP). In recent years, it increased to 2.5% of the GNP. Most of this budget is spent on salaries, with 4% of it being used for investments in the modernization of equipment (Villa 2008). The budget is relatively modest and, in its first year in office, the new government of Rouseff began reducing all budgets to fight inflation, including this one. Most investment remains concentrated in programs related to the submarine: the development of the nuclear fuel cycle and the prototype reactor for nuclear submarine propulsion. The Submarine Development Programme (PROSUB) includes the construction of four conventional submarines and nuclear technology transfer to the country, the

establishment of a shipyard and a submarine base in Itaguaí in the State of Rio de Janeiro. In the budget, there is also funding left for the Brazilian Antarctic Program (Proantar). The financing of Proantar will become more substantial in 2012, due to the serious problems that occurred there earlier this year⁸. The goal is to use the nuclear submarine to control the continental shelf, along with a conventional submarine. The nuclear submarine is slightly faster and can stay underwater for longer. Patrol vessels and a satellite system to monitor the entire Blue Amazon are planned. It is being assembled a Management System of Blue Amazon (SisGAAZ) for its defense and maritime security (Maltchik and Oliveira 2011; Mendonça 2011, 158). With a whole system of the SisGAAZ sensors will monitor what happens on the surface, subsurface and air space of the Brazilian territorial waters and much of the South Atlantic because as the Vice-Admiral Ilques Barbosa Junior rightly says, the Blue Amazon is a three-dimensional space (Galante 2010a).

The investment in nuclear energy, not only in submarines, is considered essential within the framework of EDN. It is about “developing and dominating nuclear technology.” In order for that to be achieved there will be given support to universities through scholarships for doctoral and postdoctoral studies, both in fundamental and applied sciences. Another area considered fundamental is cybernetics – both space and nuclear. The intention is to sign strategic partnerships in these areas, particularly with countries of the Community of Portuguese Language Countries (National Defense Strategy 2008). The Brazilian government wants to develop nuclear research as much as possible within the limits permitted by the Non-Proliferation Treaty, which Brazil is a signatory. (Peixoto 2010, 163-165).

One way to accelerate the development of technology in the country is to require the transfer of technology, now a *sine qua non* condition to reach the area of defense cooperation with the Brazilian government. In addition,

⁸The base must be rebuilt after the fire at the research station Comandante Ferraz Antarctic Station in February 2012, and possibly will be strengthened. “Measure provisional release R\$40 million for reconstruction base in Antarctica”, August 08, 2012, <[http://www2.camara.gov.br/agencia/noticias/CIENCIA-E-TECNOLOGIA/410843-MEDIDA-PROVISORIA-LIBERA-R\\$-40-MILHOES-PARA-RECONSTRUCAO-DE-BASE-NA-ANTARTICA.html](http://www2.camara.gov.br/agencia/noticias/CIENCIA-E-TECNOLOGIA/410843-MEDIDA-PROVISORIA-LIBERA-R$-40-MILHOES-PARA-RECONSTRUCAO-DE-BASE-NA-ANTARTICA.html)>.

construction equipment shall be made in Brazil itself, and the goal is to produce units for sale, after reaching the quantities deemed necessary to defend the country. To reach this result, the Government of Brazil signed strategic partnerships in the defense area with several countries: Germany, France, Italy and Russia, and in 2010, with the U.S. as well. However, all the contents are very different and, among these, the partnership with France is considered the most elaborate and crucial. Under the partnership agreement signed between France and Brazil in 2008, the French Government will pay the installation of the site that will be transferred to Brazil after 20 years. This is where the four Scorpene submarines will be built, besides the nuclear submarine of Ruby class. The only difference is that the weapons of the nuclear submarine will be conventional (Moreira 2011, 127-149). However, if the essential partner for the construction of submarines, Germany is the most probable candidate for partnership in the construction of ships.

As far as submarines are concerned, the PROSUB is considered a priority. An agreement was reached between Brazil and France, which has designed much of the equipment budget of the Navy used for the modernization of the Brazilian Navy. For the renewal of the surface fleet of Brazilian Navy it was established the Program for Getting Media Surface (PROSUPER). The details of both programs, including the type, quantity and time of all naval units that are designed, is a document presented by Rear-Admiral Rodolfo Henrique de Saboia during a lecture. It also includes prospects for the domestic industry. Incidentally, there are two fundamental aspects in this project for the defense of sovereignty and modernization: the transfer of technology and the strengthening and encouragement of the defense industry in Brazil (Freitas 2011; Saboia s.d., 13-15). Several companies from seven countries – Germany, South Korea, Spain, France, Italy, the Netherlands and the UK – have shown interest in participating in PROSUPER, accepting the requirement of technology transfer and construction of equipment in Brazil. The question is when will the means to implement the program, as part of the project scheduled for 2011 (and postponed to 2012) will be met (Pesce 2011).

Concerning the selection of naval aircraft, the Navy expects the Air Force's decision to follow the same choice. The fleet of Air Force fighters must be modernized. In fact it should have happened years ago. The intention is to buy 100 devices, but to start with 36, which represents a budget of US\$4 to 7

billion. The discussion on the modernization and the choice of fighter aircraft was not completed during Lula's government, as it was intended. It was postponed to Dilma's Government, which has not made a decision yet. For several years, the final selection was limited to three fighter aircrafts, among which one would be chosen: the Rafale from Dassault (French), Gripen NG from Saab (Swedish) and F-18 Super Hornet Boeing (American).

The Air Force seemed to prefer the Gripen, while the then Defense Minister Jobim, and President Lula expressed interest in the Rafale, taking into account the excellent relations with France and the signature of a strategic agreement between the two countries. To reach a final decision, a number of factors must be taken into account: the purchase price, the price per hour of flight time and cost control of the aircraft after the flight, the transfer of technology, production in Brazil and the possibility of selling a posteriori. The Rafale is the most expensive in the acquisition, use and maintenance, but the French government promised an impressive transfer of technology, including even secret codes of the device. But both Sweden and the U.S. promised to also provide a significant transfer of technology. However, the Gripen is only a project, there is not even a prototype of it, and it will remain a virtual plane until interested is shown in buying it. Technically, the Super Hornet seems to be the most advanced model. However, the presence of U.S. technology, even minimal, can complicate and even prevent the sale of fighter jets produced in Brazil, as it was the case in 2005 when Brazil was not allowed to sell to Venezuela the ALX Super Tucano aircraft manufactured by Embraer, the Brazilian aircraft manufacturer, because of its U.S. components. The Government of Venezuela ended up buying planes in Russia, a great loss to Brazil.

It can be seen that the Government of Brazil wants firstly to develop its own military industry, in order to innovate without having to rely on third countries; secondly, to meet their own needs; and thirdly, in a later moment, to sell its production to neighboring countries. To do this, it is necessary to avoid repeating the Venezuelan case. However, these three planes contain U.S. components. This means that Brazil must negotiate with the U.S. to avoid possible restrictions to the development of the national military industry (Villa 2008; Barbosa 2010, 42-45; Bertonha 2010, 120-121). The question is whether,

as the decision continues to be delayed, one should not consider further options for fighters over the years because the technology continues to advance and given the scale of the project it would be a shame if they did such a great investment for fighters that would become obsolete in a few years.

Obviously, the acquisition of much new material also requires large investments in human resources, with special attention to the Marines in the case of the Navy. According to the EDN, the Brazilian government has no intention to abolish military service, but rather to reorganize it to make it more democratic and that all social classes actually participate, which is not the case today. In the EDN, fairer participation in military service is mentioned several times, particularly in what concerns to the surpluses number for enlistment that will have to participate in the civil service in a region different from their region of origin for further integration of the country and national identity (República Federativa do Brasil 2008). The Brazilian government is actually rethinking its defense and the armed forces are doing the same. However, on the one hand, the compulsory military service can be useful for the construction of national identity, on the other, in a world where technological knowledge and expertise become increasingly essential, Bertonha suggests the wiser option of developing good and well-paid professionals (2010, 119).

The challenges that the Navy has to face in the context of Blue Amazon were highlighted at a seminar held 14 and 15 of October 2010, in the Naval War College in Rio de Janeiro. Naval and other senior officials stressed that the Navy must not only defend the Brazilian jurisdictional waters, but must also be present throughout the South Atlantic, because most African countries gained independence only in the second half of the twentieth century, and are still building its institutions and its military power, which is currently facing major challenges. The exception is South Africa with which Brazil has signed a military cooperation agreement in 2003. The two navies operate in close cooperation, ensuring the protection of the maritime border between Brazil and Africa on one hand and the access roads in the South Atlantic, not only toward Africa but especially toward the sea lanes of Asia, on the other. These routes pass through South Africa and are considered key strategic areas for Brazil. Moreover, cooperation with South Africa is growing in many areas due to the IBSA Forum (India, Brazil, South Africa), officially launched in 2005. Within

IBSA, defense is one of the areas of cooperation and there have already been Navy joint exercises between the three countries (Bueno 2010).

Brazil also wants to cooperate with other African countries, especially the Western ones, and those rich in oil, such as Angola, which currently produces about 6% of world oil. The Brazilian Government would like these countries to take steps to protect their exclusive economic zones and, if applicable, their continental shelves. It also wants to encourage and assist these countries to submit their demands for recognition to the CLPC. If Brazil does not fulfill its role and is not present in the area, other countries will, such is the case of China, which is very present and active in Africa.

On the other hand, Brazil is also aware that there are two NATO powers present in the South Atlantic, particularly the UK that controls about eight islands located around the middle area of the ocean, one of them being Ascensão. The other power is the U.S. (Galante 2010b). This is one of the reasons why Brazil launched the Zone of Peace and Cooperation in the South Atlantic (ZOPACAS, initials in Portuguese) initiative in 1986, still during the Cold War. This project incorporates 24 countries, three in South America and 21 in Africa. The United Nations General Assembly recognized the ZOPACAS, but there were votes against from the Great Britain, the United States and France - which has a border with Brazil via French Guiana - among others. The goal of ZOPACAS is to avoid the presence of nuclear weapons, weapons of mass destruction and external conflicts in the South Atlantic region (UN 1986). In 1996, the ZOPACAS was again re-affirmed and strengthened, with the addition of human rights and political, economic, scientific and cultural areas of cooperation. It also mentions issues related to the environment and prevention of illegal fishing (UN 1996). The existence of ZOPACAS was used as an argument in the National Defense Policy (NDP) document in 1996, during the Government of Fernando Henrique Cardoso, to point out that with the end of the Cold War a nuclear confrontation seemed highly unlikely... The ZOPACAS, along with the MERCOSUR and the “closer relations with the Amazon neighboring countries” establishes “a ring of peace around the country”. The government could therefore focus its attention on the development of the country and fight against social inequality, according to the PDN in 1996 (2.10). This document is very different from the 2005 PDN and especially from

the National Defense Strategy (EDN) of 2008. The president Luiz Inácio Lula da Silva (2003-2010) changed the perspective on the role of the defense for the country and the need to invest in the armed forces as developed in the EDN. In fact, the EDN is sometimes called the military Growth Acceleration Program (PAC, initials in Portuguese), compared with the economic PAC that Lula launched in his second term to boost economic growth in Brazil. It is about having the ability to defend Brazil, boosting its power of deterrence and prioritizing the country's sovereignty both on land and at sea.

The importance of the South Atlantic for national security also has consequences for the Brazilian relations with the African continent, in particular with the countries bordering that Ocean. During Lula's presidency, relations with Africa have not only intensified, but also widened in a number of cases. In particular, Brazil has begun to help some African countries to improve their defense systems. In most cases, Brazil assists in the formation of military professionals. In 2010, the then Defense Minister Jobim, also said that the Navy of Brazil would provide assistance to West African countries to make maps of the continental shelf and to delineate the boundaries of their platforms (Maltchik and Oliveira 2011). The goal is to keep the South Atlantic under the sovereign control of the countries on both sides of that ocean, as far as possible.

President Lula da Silva (2003-2010) has stimulated an active cooperation with the African countries, especially the Portuguese-speaking ones and the oil-producing ones from the West Coast, where the Brazilian multinational Petrobras also has large interests, such as in Angola and Nigeria. For this reason, the Brazilian government negotiated in 2010 military strategic partnerships with these countries, mainly to help to train soldiers. (Visentini 2010, 215-236). These partnerships are also expected to prevent that the shipping routes are restricted by countries that explore oil and wish to create exclusion zones around their platforms. This would make the transportation even more expensive and time consuming. When oil deposits were discovered in Namibia, the cooperation between the Navy of both countries, which dates from 1994, was reinforced. In 2010, a first group of Namibian Marines was formed with the help of the Navy of Brazil.

There is a special and very old partnership between Angola and Brazil. This dates back from colonial times. Brazil was the first country to recognize the independence of Angola. Relations with Angola are complex and quite

varied. The Brazilian Economic and Social Development Bank opened a credit line of US\$2 billion at the end of April 2012 for Angola. The country is also of interest to Brazil because it is a major oil producer, holding 6% of the hydrocarbon resources of the world. A specific agreement was signed in 2010 for training the Angolan military and giving technological assistance for Angola to claim its continental shelf. Moreover, the country is a member of the Community of Portuguese Language Countries (CPLP), established in 1989. Most of these countries are located in West Africa, with the exception of Mozambique (Visentini 2010, 233-234, 236-237). The Portuguese-speaking African countries formed their own sub-organization, the African Countries of Portuguese Official Language. The defense is one of the cooperation areas of the CPLP. The defense ministers meet almost yearly. In November 2011, XIII such meeting was held in Cape Verde. The final statement clearly demonstrated that Brazil played a crucial role in this meeting and that its key partners are the African countries (Final Declaration of the XIII Meeting of Defence Ministers of the CPLP, 2011).

In that same year, Brazil signed a military cooperation agreement with Nigeria seeking firstly to protect the sea lanes against foreign oil companies and secondly to strengthen the relations between the navies of Nigeria and Brazil. Moreover, the country may be interested in school boats developed by the Brazilian Navy, to transport students from coastal communities to public schools in the Northern Region. More generally, Brazil encourages African countries to take care of navigation routes to avoid problems when granting mining rights to international companies (Poggio 2010).

Final considerations

The Navy of Brazil is not just building Blue Amazon, rethinking the South Atlantic, the national security and all the challenges that stem from these issues, but it wants Brazil to re-discover its maritime vocation. It is investing heavily in the modernization and expansion of several naval forces: the Submarine Force (which will have submarines propelled by nuclear energy), the Surface Force, and the Naval Air Force. Combined, they will help the country to develop its role nationally and internationally in the South Atlantic. Because of that, Brazil is expanding its cooperation with the countries of West Africa; it

is about supporting African countries so that the South Atlantic is the South Ocean, without the presence of “the North”, or at least that this very presence does not jeopardize the interests of the South in general and of Brazil in particular.

To accelerate its goal of becoming a new maritime power, the Brazilian Navy works closely with a number of European countries, especially with France, to ensure that their equipment is adequate, that technology will be transferred and that the establishment of the naval industry in Brazil becomes a reality. The Ministry of Defense, the Armed Forces and the Navy more in particular moved from a reactive attitude to a very proactive one. The National Defense Strategy plays a crucial role and indicates a different direction for the country. If the country wants to assume the role of a world power, so far mainly in the southern hemisphere, its military power has to follow its ambitions.

To achieve these objectives, the Government and the Congress must give the necessary support, especially in financial terms, for the Armed Forces. In case of the Blue Amazon, the Navy and Air Force must be prepared with modern equipments in order to ensure country’ sovereignty and its power of deterrence, “preserving the ability of a coastal state to strengthen national security.” (Barbosa 2007, 51) The coastal state with the Blue Amazon certainly requires further attention.

The Brazilian defense has to grow again, which is why the President Dilma Rousseff is giving special attention to this industry, establishing special measures, such as tax reduction. However, these objectives have to be followed by an appropriate budget.

“We are the sixth economy in the world and want to be a developed Country, with a high human development index. Our Armed Forces must also be equal to the country on meritocracy, professionalism, technical capacity and, moreover, dissuasive capacity” (Rousseff 2012).

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ABSTRACT

The Brazilian Navy launched the concept of Blue Amazon to draw attention to the existing resources in the Ocean and their importance for the Brazilian economy. This also implies thinking about the defense of these national resources and about the investments needed for the Navy to have the capacity to protect the maritime territory under the Brazilian jurisdiction.

KEYWORDS

Blue Amazon; South Atlantic; Sea Resources; Defense; Security; Brazilian Navy.

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