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THE CHALLENGES OF BRAZILIAN NAVY IN BUILDING ITS NAVAL POWER

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Paper Abstract

There is a consensus that sea is important to human activity because of its usefulness as a means of transport, a means to exchange information and the natural resources it contains. Besides these classic functions, the sea also enables the countries to position its military power for diplomatic or combat purposes. Having a vast coastline, Brazil is inserted in the maritime context, which makes it an important beneficiary of these activities and an actor in the relationship between states. These benefits bring challenges that the Brazilian Navy must plan to face. This paper presents how the Navy is developing its plans according to the guidance of recent normative acts promulgated by the Brazilian State. These acts the Brazilian Navy's involvement in South Atlantic Ocean, its responsibilities and partnerships and also the projects that are in process for the acquisition of new naval assets planned to equip the naval force in order to prepare it to face the new challenges that the XXI century has presented. Finally, the paper draws conclusions concerning the efforts that should be undertaken by Brazil and other countries to ensure the proper use of the seas and increase safety on the seas.

INTRODUCTION

The sea is of fundamental importance to human activity on Earth. Coutau-Bégarie identifies the positive functions of the maritime element as a source of wealth, a means of communication, and a theater of conflict (Coutau-Bégarie 2010). According to Geoffrey Till, the contribution of the sea to human development can be described by four attributes: the resources it contains, its usefulness as a means of transport of persons and shipping of goods, the importance as a mean to exchange information, and as a source of power and domination (Till 2009). Ken Booth states that the interest of states to use the sea is in transport of people and trade of goods, economic exploitation of existing resources, and the ability to position its military power for diplomatic purposes or for employing against targets on land and sea (Booth 1989). Observing these considerations, there is consensus that the sea has characteristics that make it usable for economic activity and can define the relationship among states regarding power.

Having a vast coastline, Brazil is a maritime nation, which makes it an important beneficiary of these activities and a chief actor in the relationship between states. The discovery of large oil fields in the sea, in the 1970s¹, which are explored to date, and the existence of a broad trade conducted with various states by sea are examples of benefits. These also prove the importance of the use of the sea to the country's development. These benefits, however, bring in its core responsibilities such as control of the maritime areas where the drilling platforms are located and the protection of maritime traffic in face of the threats to the good order at sea (TILL 2009).

¹ Several oil fields were discovered in the north coast of the state of Rio de Janeiro in 1974. These fields later became known as “Campos Basin,” the largest oil province. Commercial operation started in 1977 with the production of the Enchova field. From there, the production from the sea began to have increasing volume within the national production (PETROBRAS 2016).

Thus, the purpose of this paper is to present how the Brazilian Navy is planning to face the challenges of the XXI century. The importance lies in the fact that Brazil is a maritime nation that depends on the freedom of the seas for its economic development. The Brazilian Navy needs to own and operate a naval power compatible with the size of the Brazilian maritime areas to secure the freedom of the seas.

The work is divided into four topics. The first topic will focus on the normative acts, from the Constitution of the Federative Republic of Brazil (CFRB) to the acts of lower rank, promulgated by the Brazilian State that are related to the definition of the tasks of the Brazilian Armed Forces focusing on those related to the Brazilian Navy.

The second topic introduces the characteristics of the Brazilian strategic environment. The emphasis will be on the Brazilian Navy's involvement in South Atlantic Ocean, its responsibilities, and the partnerships it has developed in order to accomplish its mission.

The third topic introduces the projects that are in process for the acquisition of new naval assets planned to equip the naval power in order to prepare it to face the new challenges and threats that the XXI century has presented. The fourth topic presents the conclusions consolidated in this paper.

NORMATIVE ACTS ON DEFENSE

The CFRB establishes the principles of international relations of Brazil with other countries and multilateral organizations, among them: the policy of non-intervention, international cooperation, defense of peace, and the peaceful settlement of conflicts.

Below the CFRB is the National Defense Policy (NDP), which contains the guidelines for planning coordinated actions by the Ministry of Defense to guarantee the sovereignty, national patrimony, and territorial integrity. It sets objectives and guidelines for

the preparation and employment of military and civil sectors in all instruments of national power. Its focus is on the external threats to national sovereignty. Among the guidelines are the National Defense objectives. Thus, we highlight three goals that will be explained in this work that guide the actions of the Brazilian Navy: the defense of national interests, people and resources; the contribution to regional stability and the maintenance of international peace and security; and the education of the Brazilian society about the importance of the defense issues. For the purpose of this paper, the terms security and defense will be defined as follows: security concerns a condition, it means a state of affairs; while defense means a set of measures followed by effective actions. Thus, after the implementation of these actions the desired degree of security will be obtained.

Below the NDP is the National Defense Strategy (NDS), which sets out medium- and long-term strategic actions and national defense structure modernization goals. In this sense, the Brazilian Navy has set as its strategic goals the expansion of presence in the strategic areas of the South Atlantic; increasing cooperation and participation in combined operations with friendly navies; taking part in peacekeeping operations under the aegis of international organizations; in expanding military arrangements of collective defense; and in conducting humanitarian assistance/disaster relief operations. The NDS also establishes the modernization of the defense structure which will lead to increased defense capacity, always considering the character of cooperation and dissuasion of the NDP. For the Brazilian Navy, the main goal is the reconfiguration of the naval power. It will increase the country's capacity to contribute to international peace and accomplish other critical missions, especially the safety of navigation, safety of life at sea, and preventing and combating "new threats" such as terrorism, drug trafficking, smuggling, piracy, illegal fishing and marine pollution.

Following the NDP and NDS, the National Defense White Paper describes key Brazilian defense issues to the world. The aim is also to broaden the debate about defense within the Brazilian Congress and society. Society can also evaluate the performance of the Armed Forces and government against the goals set by the NDS. It should help engage Brazilian society in the idea that decisions concerning peace and war are not detached from popular awareness. The disclosure of this document seeks to ensure understanding of the motivations and aims of the defense and represents a mutual trust-building measure. The sharing of this information has the purpose of strengthening cooperation with South American countries and foster the establishment of a peaceful and secure community in the region. Beyond this effort, it shows countries outside the region that our defense focus is structured to dissuade and prevent threats against Brazil. In short, it will describe the main defense activities to the Brazilian society, which increases the level of defense and security of the country, and also it will support Brazilian diplomacy, which contributes to transparency and mutual confidence.

As the main guidance within the service, the Navy Basic Doctrine (NBD) defines the methods of deployment of naval power in order to guide and prepare the organization to accomplish its mission. It also has the additional purpose of providing the other component organizations of Brazil's defense system, the deployment design that the Navy identifies as appropriate, in accordance with the standards established by the political branch. The NBD defines the Brazilian Navy's mission as "Prepare and deploy the naval power in order to contribute to the defense of the country. Be ready to act on the guarantee of the constitutional powers, of law and order; act under the aegis of international organizations supporting the foreign policy of the country; and comply with subsidiary tasks provided by law, with an

emphasis on those related to the Maritime Authority in order to contribute to the safeguarding of national interests."²

Following this guidance, the Navy must be able to perform the four basic tasks as follows: deny the use of the sea; control maritime areas; project power over land; and contribute to the dissuasion. Major comments on the basic tasks will be described in the topic about reconfiguration of naval power.

“Blue Amazon” is a key concept that defines another major task of the Brazilian Navy. Given the importance of the use of the sea to the development of Brazil and the evidence of the lack of this knowledge in much of the society, the Brazilian Navy, in 2004, drew up the political-strategic concept called "Blue Amazon."³ It refers to the maritime areas in which Brazil has jurisdiction for the purposes of control and supervision on economic activities of exploitation of natural resources, within the limits of international and national laws.

Prior to this concept there was a lack of policies for the use and protection of resources from the ocean. It was realized that the development of a maritime awareness could help to shape public opinion towards the importance of the sea to Brazil. This would encourage the Brazilian state to develop policies by that would ensure the ownership and maintenance of a naval power compatible with the size of the maritime areas and ready to ensure the interests of Brazil in these areas. The concept sought to draw a parallel between the Amazon rainforest, the “Green Amazon” and the Brazilian maritime areas. Both spaces are home to a considerable share of natural resources, but only one would have received the

² Brazilian Navy. Navy Basic Doctrine. Navy Document (EMA-305). Brasilia, DF: 8 January 2014.

³ Roberto G. Carvalho, “A Outra Amazônia,” *Folha de São Paulo*, 25 february 2004.

necessary attention from policy makers and our society. The other area, the "Blue Amazon," would still remain ignored by sizeable portion of our population.

Those high-level defense planning documents guide the Brazilian Navy in the implementation of naval power. The Brazilian naval power is an important tool for meeting the objectives cited in the documents, due to its capacities of mobility, versatility, permanence, and flexibility.

To conclude, the creation and review of documents concerning national defense is a challenge in a country where the majority of the population perceive low threat levels, mainly due to the long period in which Brazil has not been involved in an armed conflict. The documents represent a way to deepen the understanding of the present and future of National Defense.

GEOSTRATEGIC ENVIRONMENT

The strategic maritime areas of greater priority and importance to Brazil are represented by the Brazilian jurisdictional waters. This "Blue Amazon" includes the territorial sea, the contiguous zone, the economic exclusive zone and the continental shelf, as well as the region delimited as the search and rescue area. The jurisdictional waters total about 1.7 million square miles in the South Atlantic, including a smaller area in the North Atlantic. These areas are rich in living and non-living natural resources. The most important areas are the great oil reserves within three main basins in the Brazilian continental shelf and the fish stocks around the Equator in the Atlantic. However, Brazil's role is not limited to this area because in order to expand the peaceful environment for the future, it is necessary to establish strategic partnerships and promote a balanced and harmonic governance with the surrounding countries.

The Brazilian Navy Commander recently stated "Brazil's geopolitical situation is directly related to the stability of South America and its strategic surroundings, which include the South Atlantic Ocean and west coast of Africa."⁴ This statement summarizes the geostrategic environment in Brazil.

Thus the Brazilian foreign policy view of the geostrategic environment extends beyond the national territory. The geostrategic environment includes the area surrounding the South American continent, which is the priority, and also the South Atlantic bordering countries of Africa as well as Antarctica. West Africa is considered an ancient border whose ties need to be strengthened. Europe and North America, traditional areas of political, economic and cultural ties, also remain as relevant partners to Brazil.

Brazil has made efforts in military, diplomatic and economic areas in order to strengthen regional integration. A major milestone was the creation of the South American Nations Union (UNASUR) forum which seeks to promote actions for cooperation and regional integration. The Council of South American Defense, created within the UNASUR, aimed to start these actions in the security and defense field, by encouraging the consolidation of a regional industrial defense base to meet the needs of the countries of the subcontinent. In order to achieve the regional stability, it is necessary for consensus, political harmony, and convergence of actions among countries that lead to economic and social development.

Brazil is the owner of the largest South Atlantic coast, and for this reason it has special interest in its peace and security. The South Atlantic Ocean holds strategic areas which are vital for world trade as the southern passages linking the Atlantic to the Pacific, an alternative route to the Panama Canal, the Cape of Good Hope's route, connecting the

⁴ "The Commanders Respond," *Proceedings*, March 2016, 36.

Atlantic to the Indian Ocean, an alternative to the Suez Canal, and the main passage to the Antarctic continent. Brazil dedicates, together with its South American and Western Africa neighbors, special attention to building a cooperative environment in the South Atlantic, under the aegis of the Zone of Peace and Cooperation of the South Atlantic (ZPCSA). It was created in 1986 by the United Nations on Brazil's initiative to foster political, diplomatic, economic, commercial and scientific cooperation and to preserve peace in the region. ZPCSA today has 24 members. It is the only structure that brings together all the countries of the South Atlantic basin. It is an important forum for the discussion of development strategies and diversified exchange among the coastal countries of the South Atlantic. While reiterating the commitment to non-proliferation of weapons of mass destruction in the region, the organization seeks to expand the initiatives for the development of research, production and use of nuclear energy for peaceful purposes; the protection of the marine environment; and the struggle against drug and weapons trafficking. Initiatives in security of maritime traffic, search and rescue operations, peacekeeping operations, and delimitation of the continental shelf are also in its agenda.

Following Brazilian national foreign policy, South America also constitutes a priority area for the Brazilian Navy, which has made great efforts in the areas of cooperation, integration and regional stability. These include naval exercises, developed with the neighboring countries of the continent and an extensive program of professional exchanges in the educational and administrative areas. The cooperation of the Brazilian Navy with Western Africa countries and the intensification of the relationship between Brazil and Africa in the security and defense areas was advanced by signing and implementing agreements of defense

cooperation with South Africa, Angola, Cape Verde, Equatorial Guinea, Namibia, Nigeria and Senegal.

The Brazilian Navy also has contributed to the United States initiatives for global and regional maritime security by emphasizing the participation in the Africa Partnership Station and in the multinational exercise OBANGAME EXPRESS. This has resulted in the exchange of information and improvements in training, especially for the African countries' navies, in how to counter piracy and drug trafficking. In the multinational exercise PANAMAX, the Brazilian Navy participation increased interoperability and training in planning and execution of a complex combined operation.

All of this points to the fact that the South Atlantic is the priority area of interest to Brazil, with regard to the maritime trade, exploration and exploitation of natural resources, scientific survey and research, and defense and security interests, as shown by the ZPCSA. So this is the strategic maritime area of major importance for the deployment of the Brazilian naval power.

This set of factors highlights the strategic importance of the South Atlantic and the effort of the Navy, from the time of peace, to ensure the defense and security of the huge Brazilian heritage at sea. For the execution of all tasks already listed, there must exist a well-equipped and well-trained navy, equipped with modern naval assets and having the credibility and ability to act, not only in Blue Amazon, but across the whole strategic environment as explained above. The efforts of the Brazilian Navy to maintain that credibility and improve its naval power have required a reconfiguration of Naval Power.

RECONFIGURATION OF NAVAL POWER

According to the NDP, external defense is the main purpose of the Armed Forces. The main role of the Brazilian armed forces is to deter any aggression against the country. Therefore, the Brazilian Navy must have the assets capable of exercising surveillance, control and defense of Brazilian jurisdictional waters, and maintaining the security of its maritime sea lines of communication, especially in the South Atlantic.

Any coastal country becomes vulnerable to threats of invasion and attacks from the sea if it doesn't have an efficient system of defense of its territorial waters. Besides the classical threats mentioned above, Brazil must also defend against "new threats," so called because they have shown up more often in the beginning of XXI century. It is plausible to mention drug trafficking, smuggling, pollution, and illegal fishing as threats that already occur in Brazilian jurisdictional waters. Besides these threats, we can mention terrorism and piracy which already occur in other parts of the world and could also come to Brazilian waters at any given time.

Consistent with the NDP and aware of these threats, the NDS recognized the importance of assets for the Navy so that it can perform the four basic tasks of naval power listed in the basic doctrine of the Navy, with priority for the denial of use the sea and the control of maritime areas.

A well-prepared and -equipped Navy becomes the fundamental gear of the system. A greater situational awareness of the territorial waters will allow better conditions in which the decision makers will decide about the use of military power. In terms of space, it can be said that the farther from littoral the country is able to defend itself from the threats, the better will be its condition of security.

The strategic concept of the Brazilian Navy reconfiguration resulted from the comparison of the national and strategic vulnerabilities and aspirations of the country against the current necessary skills. There are long-term ambitious projects, and budget constraints may impose limiting factors for the desired pace of the work. There are always risks that the approved budget is not enough to meet all the identified needs. But the most important thing is to concentrate the essential priorities and never change the strategic concept to adjust it to the budget. In Brazil, the defense problems are not always a priority issue when compared to other more pressing problems, mainly social. In addition, there is the factor already mentioned about the long period without involvement in an armed conflict. Thus following its strategic concept, the Navy developed programs to obtain the assets that will be described below.

The Program for Development of Submarines (PROSUB), which together with the nuclear program of the Navy (PNM), aims to enable the country to design and build conventional- and nuclear-powered submarines. The program resulted from a cooperative partnership established in 2008 in the defense area between Brazil and France. The program encompasses the construction of four diesel-electric *Scorpene*-class submarines according to the technical and operational requirements set by Brazilian Navy. The most important result of the program will be the design and construction of a nuclear-powered attack submarine. It will represent a major technological leap for the shipbuilding industry, since Brazil is fully in charge of the development and construction of the nuclear propulsion plants. The program also foresees the construction of a shipyard and a naval base dedicated to the construction, maintenance and logistical support of submarines. Thus Brazil will be self-sufficient in construction and operation of these submarines. After the completion of the program, Brazil

will be holder of a submarine force consisting of conventional and nuclear submarines capable of denying the use of the sea to the enemy. Although it can be assessed that the risk posed by this threat could be small, the advanced defense provided by submarines was one of the strategies defined to accomplish this task.

To increase the ability to control maritime areas the Navy had implemented the Surface Assets Program (PROSUPER) to renew the escort ships fleet and to obtain multi-purpose ships, and the Aircraft Carrier Program (PRONAE) to replace the current carrier. Some could question why Brazil owns a carrier, given NDP's priority is to dissuade and not project power. The explanation is that for the Navy, the existence of an aircraft carrier with specific aviation groups increases dramatically the capacity of the naval force. The reconnaissance capacity, due to their mobility, is much higher; the presence aboard of attack aircraft increases the capacity of naval force to repel attacks from the sea; the use of helicopters in anti-submarine warfare increases the capacity of the force to operate in areas of submarine threat and also allows better protection of maritime traffic against underwater threats. For the reasons listed above, the carrier is a key asset to control maritime areas.

In turn, the projection of power will be carried out by the Marine Corps, always in permanent condition of employment, which should be consolidated as an expeditionary asset, and by a naval power able to operate in the full range of Brazilian jurisdictional waters.

In addition to the basic tasks, the Navy should exercise permanent monitoring activities, in compliance with its subsidiary assignments, and in order to achieve Situational Awareness. Maritime Situational Awareness (MSA) is an understanding of all that is associated with the marine environment, which can impact the security, defense, economy and environment of a country. However, due to the large size of the maritime area of

responsibility and the current shortage of resources, the effectiveness of these activities is compromised. An accurate MSA of the strategic surroundings will enhance the use of naval power. From this perspective, the Navy is preparing to collect, analyze, and disseminate this knowledge through the Management System of the Blue Amazon, (SisGAAz).

To meet this demand, the SisGAAz will monitor and control in an integrated way the Blue Amazon, the Search and Rescue (SAR) responsibility region and other areas of strategic interest in the South Atlantic, in order to contribute to the strategic mobility, represented by ability to promptly respond to any threat, aggression or illegality. The SisGAAz consists of a sensor infrastructure, communications, and command and control systems, which executes the collection of data on the environment, ensure the flow of such data between its elements and process for use by decision makers. The SisGAAz provides the modernization of the command and control structure and Navy's Operational Intelligence with actual knowledge of the events that occur in Brazilian jurisdictional waters. Once implemented, it will contribute to improve maritime situational awareness that will increase the reaction capacity to face the aforementioned threats. By having a dual feature, the system will not be limited to the decision-making process for the military application of naval power, but it will have a decisive impact also in the execution of search and rescue operations and interagency surveillance operations related to the safety of Blue Amazon, such as prevention of environmental pollution and quick response to the "new threats."

Accomplishing all these tasks herein mentioned in an efficient and effective way, the naval power will be fulfilling its fourth task, to contribute to the dissuasion and thereby achieving the main goal of the NDP.

CONCLUSION

Considering the potential of the economic exploitation of the oceans and the growing importance of trade by sea, it is clear that a major effort should be undertaken by countries and their navies to increase safety of the seas, both regionally and globally. Only with cooperation and respect for national sovereignties will such conditions be met.

As for the function of the Armed Forces, expressed in the CFRB and in the NDP, the Navy has a significant part in implementing the guidelines for the preparation and employment of military power focused on the defense of national interests; the contribution to regional stability, and the maintenance of international peace and security; and the education of the Brazilian society regarding the defense issues.

The guidelines set out in the NDS have significant value in establishing priorities for the reconfiguration of naval power, which will contribute to increasing the Navy's ability to meet its legal obligations, and its subsidiary duties, its peacekeeping operations, and in support of foreign policy. The Brazilian Navy should be able to respond to any conventional or unconventional threat or hostile criminal force threatening the sea lines of communication, the oil platforms, or the oceanic islands in Brazilian jurisdictional waters.

The task of sea denial guides the maritime defense strategy in Brazil. One of the priorities of the Brazilian Navy is to ensure the means to deny the use of the sea to any concentration of hostile forces approaching Brazil by sea. By ensuring their effectiveness to deny use of the sea, the Navy also develops its potential to carry out the control of maritime areas of political and strategic importance, as well as their sea lines of communications. These capabilities, coupled with the projection of power, are focused on the defense of the oil

platforms and naval and port facilities and Brazilian oceanic islands, and the readiness to respond to any threat, by state or by non-conventional or criminal forces.

To deepen their ties of cooperation, the Navy gives priority to the member countries of the Council of South American Defense and in countries in West Africa, seeking for greater approximation and convergence of actions with all friendly navies to face new threats, prevent maritime pollution, and ensure the safety of maritime traffic in the South Atlantic. So this is the strategic maritime area of major importance for the deployment of the Brazilian naval power. The great efforts for cooperation, integration and regional stability regarding defense and security interests, are reflected by the establishment of ZPCSA. Maritime security will only be achieved with the strengthening of international cooperation involving intelligence, legal support and the capacity of enforcement bodies of the law and regulations at sea.

To achieve all the objectives described herein, it is necessary to own a modern Navy able to increase its presence in the South Atlantic, in order to contribute to the promotion of regional integration in the security and defense fields. The Navy has developed the PROSUB, the PROSUPER, and the PRONAE to reconfigure and improve its naval power. Another major project, the SisGAAZ, aims to best conduct surveillance and control of maritime assets in an integrated way to support Blue Amazon, the SAR region, and monitor other areas of strategic interest in the contiguous South Atlantic.

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