Brazilian Naval Strategic Thinking, 1985-2018

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Abstract

A number of works have been written on maritime strategy. However, to date, this concept has not been comprehensively explored in the Brazilian context. Thus, this thesis seeks to associate Brazil's reality with its maritime strategy over the last three decades. The thesis confronts maritime strategy in the Brazilian context with regards to five distinct maritime strategy perspectives: 1) history, practice and thought; 2) naval strategy and grand strategy; 3) narrow and broad maritime strategies; 4) declaratory strategy, operational strategy and strategy of means; and 5) maritime strategy and maritime security. The flexible scope of the maritime strategy concept, depending on the case in question, renders these approaches dependent on each other, thus offering a clearer view of the specific reality under scrutiny. Such considerations prompted the research question and associated aim: to understand how Brazilian naval strategic thinking has been characterised since 1985, during a time when there were relevant domestic political shifts, coupled with the imminent end of the Cold War and the advent of the new Law of the Sea. To achieve this aim and answer the question this thesis defined three main objectives. One aimed to understand the role of historical and geopolitical factors in the interaction between Brazil and its Navy, and how this has affected the nation's ends and its overall risk-opportunity perceptions, as well as the Navy's ensuing strategy of means. The second objective focused on the national and defence level of policies and strategies, and the legal framework. These aspects provided the wider context for the third objective, which focused on the investigation of the naval level, through the analysis of naval documents, force structure and publications. The thesis's main innovation is its proposal of a polygon, a new model representing the multiple functions of the Brazilian Navy. The adaptability of this model offers a valuable contribution to enriching the concepts used, thus helping to understand different types of navies, and indicating Brazil's own version of maritime strategy.

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Acronyms and Abbreviations

AENAV	Naval Strategic Assessment
BN	Brazilian Navy
CDA	*Capitanias, Delegacias e Agências* (in Portuguese)
CDDCFN	Doctrinal Development Command of the Marine Corps
CENAV	Naval Strategic Concept
CF	Federal Constitution
CGEM	Navy's Electronic Warfare Centre
CIRM	Interministerial Commission for Marine Resources
CISMAR	Integrated Centre for Maritime Security
CLCS	Commission on the Limits of the Continental Shelf of the United Nations
COMCONTRAM	Command for Maritime Traffic Control
ComemCh	Commander-in-Chief of the Fleet
ComFFE	Fleet Marines Force Command
ComOpNav	Command of Naval Operations
DBM	Navy Basic Doctrine
DGN	Directorate-General for Navigation
DIPNAV	Guidelines for Naval Planning
DirBaM	Basic Guidelines of the Navy
EEZ	Exclusive Economic Zone
EMA	Navy Staff
END	National Defence Strategy
FAB	Brazilian Air Force
FFE	Fleet Marines Force
GLO	Assurance of law and order
GptFN	Marines Group
IATRA	Inter-American Treaty of Reciprocal Assistance
IBAMA	Institute of Environment and Renewable Natural Resources
IME	Engineering Military Institute
ITA	Air Force Technological Institute
LBDN	National Defence White Paper

LC	Complementary law
LEPLAC	Brazilian Continental Shelf Survey Plan
MoD	Brazilian Ministry of Defence
ORCOM	Navy Commander Guidelines
ORIM	Navy Minister Guidelines
ORISET	Sectorial Guidelines
PAED	Defence Equipment and Articulation Plan
PAEMB	Navy Employment and Facilities Plan
PBM	Navy Basic Policy
PDN and PND	National Defence Policy
PEM	Navy Strategic Plan
PMN	National Maritime Policy
PNGC	National Plan for Coastal Management
PNRM	National Policy for Marine Resources
PRM	Navy Re-equipment Programme
PROANTAR	Brazilian Antarctic Programme
PROSUB	Submarine Development Programme
PSRM	Sectorial Plan for Marine Resources
RMB	Brazilian Maritime Journal
RPB-IMO	Permanent Representation of Brazil to International Maritime Organization
SECIRM	Secretariat of CIRM
SIGINT	Signals Intelligence
SisGAAz	Blue Amazon Management System
SNAC	National Submarine
UNCLOS	United Nations Convention on the Law of the Sea
UNIFIL	United Nations Interim Force in Lebanon
ZPCSA	Zone of Peace and Cooperation of the South Atlantic

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1 Introduction

The transformations in maritime strategy and security caused by the end of the Cold War and the subsequent evolving global order would present enough structural changes with potential to affect how strategy is thought, depending on the geopolitical space and the level of interest at stake. In the case of Brazil, domestic structural change must also be considered, with, for instance, a transition from the military to the civilian regime in 1985, the innovation in creating the Ministry of Defence (MoD) in 1999, and the revival of old ambitions such as the nuclear-powered submarine programme in 2008, combined with the geostrategic weight Brazil holds in South America and the South Atlantic. As a result, arguably we have had a mixture of influences strong enough to impact Brazil's defence thinking in general and its maritime strategy in particular over the last four decades.

Hence, the aim of this thesis is to understand how the Brazilian maritime strategy has unfolded from the last moments of the Cold War up to the present (2018). To address this issue in a comprehensive way, considering the variety of roles the Brazilian Navy (BN) has traditionally played, especially since the 1990s, this study analyses how the Brazilian naval strategic thinking has developed over this period. This thesis understands 'naval strategic thinking' as a set of manifestations – tangible evidence – related to maritime strategy and other associated concepts, as will be seen.

In terms of the theoretical framework used to make sense of this issue this thesis considered the functions of navies approach, based on the work of Booth (1977)[1] and Grove (1990); analysed, at the same time, the maritime strategy concept through Hattendorf's three-fold approach: history, practice and thought (2013); and employed other maritime strategy perspectives as additional conceptual lenses which will help in that understanding.

As for the objectives, following the mentioned three-fold approach, this study will achieve its aim by, firstly, analysing the historical background and relevant themes that will help explain the engagements between Brazil and its navy. Through such analysis, I intend to identify the overall risk-opportunity perceptions of the navy institution which has impacted its position and many policy decisions in recent times.

Secondly, I will identify the documental framework at the higher level, from the Constitution through the maritime policies to the defence policies and strategies over the timeframe. By identifying this structural perspective, I intend to highlight how this framework both has likely shaped the navy's policy decisions – expressed by the evidence that follows (naval documents, naval force and naval publications) – and, to a certain extent, has been shaped by it.

Thirdly, after this historical and structural analyses, and following the three-fold approach, the study will finally delve into a more substantial perspective, addressing formal expressions of maritime strategy in Brazil's case. Firstly, it will analyse naval documents – policies, strategies and doctrines – which will fit both the 'thought' and 'practice' approaches. Then, I will investigate the naval force aspects – force structure, missions, activities – concerning the 'practice' approach. Finally, I will analyse Brazilian naval publications,

[1] With a new edition in 2014.

exposing the thoughts of two of the main Brazilian naval experts and the Brazilian Maritime Journal, which will complement the above analyses.

Another essential objective to achieve the aim was to conduct elite interviews with five current or former heads of the navy of the timeframe covered in order to grasp decision-making elements that will help consolidate the whole above analyses.[2] The final objective will be to discuss and relate the findings to the literature review and theoretical framework. Therefore, the main research question formulated is the following: How has Brazilian naval strategic thinking been characterised since the mid-1980s until 2018, the end of the President Temer's administration?

This thesis argues that the BN has, since the mid-1980s, been assigned and carried out such a wide array of tasks, which have ranged from traditional defence and international security matters to the domestic needs of Brazilian society, that a diverse mix of concepts beyond the classical approaches of maritime strategy is needed to explain its very unique kind of maritime strategy and naval strategic thinking. At the same time, this uniqueness also relies on a more comprehensive exploration of the main functions of the BN.

This thesis contributes to the broad field of research of maritime strategy with the analytical review of the Brazilian case. One from a part of the globe not always heard of in terms of strategy – as Admiral J. R. Hill once noticed (1986, p.24) – which could significantly add to the discourse on past and contemporary maritime strategy. This has been achieved by addressing the gaps related to maritime strategy and associated concepts, and by using the peculiarities of the Brazilian reality to readdress these concepts from a different perspective.

The main findings of this research involve the reframing of the frequently used and adapted Booth's triangle of the functions of navies. In fact, a flexible polygon would be needed to suit to the BN's case, and could also apply to other navies with similar configurations. The findings also highlight the utility of the empiricism of the Brazilian case in enriching the employment of other lenses related to maritime strategy, such as strategy of means, declaratory strategies and maritime security.

The literature review that follows will address three parts with the aim of identifying these gaps. Firstly, a broader context will focus on the relationships between navies and nations, the permanent and variant factors affecting these relations, and a brief assessment – to be further developed – of global trends and Brazil in the international and domestic contexts which contain these factors. Secondly, the main features of the BN, in itself and compared to other navies, will provide an initial understanding of the main actor for those unfamiliar to it. Finally, the main part will address maritime strategy through a variety of perspectives, as signalled, which will also serve as the theoretical framework that will underpin the whole study in order to resolve the identified gaps and extend or refine the main concepts. After that, the methodological points will be addressed, prior to the empirical chapters.

[2] The interviewees, with their respective tenures, were as follows: Admiral Ilques (2019-today: September 2019), Admiral Leal Ferreira (2015-2019), Admiral Moura Neto (2007-2015), Admiral Guimarães Carvalho (2003-2007) and Admiral Mauro Cesar (1995-1999). Although not a former Minister or Commander of the Navy, Admiral (Marine) Monteiro, General-Commander of the Marine Corps from 2006 to 2010, and therefore a former member of the Admiralty, was also interviewed, regarding his views about Marine Corps development, since it is part of the Brazilian Navy.

1.1 Nations and navies

According to each nation's societal needs, activities related to the maritime or riverine domains (for the purposes of this thesis, the former embraces the latter) have always been prescribed. Fisheries, transport, commerce, and power projection, to name a few, obviously have not depended on theories and concepts to develop themselves. Instead, they have offered the practical activities which have shaped such theories and concepts. Additionally, they have usually depended on some degree of national agency to ensure they have the conditions to be properly carried out. Thus, nations, depending on their resources and their abilities to control these domains, have developed instruments to meet their own needs. We may call them navies – a term whose English and French origins come from 14th century (Random House, 2010) – coast guards or, as more recently utilised, maritime security forces.

The recurrence of the question 'why do nations need navies?' in texts is only a reflection of the broad range of possible answers and the several variables involved in their composition. The nature of these variables, like many human matters, is a combination of objective and perceived traits. The latter is particularly relevant to security because it involves threat and opportunity perceptions.

Obviously, not only the inherent factors of a single nation (e.g. political will, power, resources and technology) linked to the maritime domain compose these variables. Perceived influences or impacts, positive or not, from other nations, as well as the increasing interaction with non-state actors, are also concerns of the nation state. When the interaction between actors comes into play, we start to talk about strategy. Thus, the context of surrounding nations with their many dimensions (e.g. historical, political, economic, military and social) will influence those answers.

Although geography plays an important role, the stronger these inherent factors are, the less physical distance between nations is a barrier to interaction. Besides, given the nature of the maritime domain, this interconnection has always been there for the nations able to and interested in using it. Moreover, it has also been progressively enhanced, accompanying the technological progress with increasingly more complex means. Therefore, this interconnected influence or impact can affect even the most distant and landlocked states. One recent example was when offensive projection from the sea reached a country like Afghanistan in 2001 (Waters & Jordan, 2016, pp.19–20).

In sum, the many possible answers to why nations need navies – due to the variety of needs, interests, possibilities, conditions, and constraints that nations face, either domestically or internationally – will ultimately reflect on their distinct sizes, compositions, and roles as instruments. How nations frame and use those instruments to address domestic or external challenges, for purposes of peace, war, or anything else, reveals much about relationships within their societies and their relationship with the maritime spaces around them, Brazil here being a case in point.

This thinking can similarly be seen in the work of Hattendorf (1989), when he assesses the relative applicability of Mahan's (1890) naval thinking, stating that '[…] different types of nations had different uses for navies. Continental power, maritime island nations, and small coastal states each valued and used navies in different functions, some playing a relatively more

important role than others' (Hattendorf, 1989, p.138). Understanding how this unfolded in the Brazilian case over the last few decades is ultimately what drives this thesis.

1.2 Permanent and variant factors

Among the factors that affect the relationship between nations and navies, some are more permanent, while others fluctuate. However, they all drive governments' employment of their navies either for domestic needs, international engagement or, perhaps more commonly, a combination of both. A well-known example of the importance of a strong navy for international employment is Mahan's work on the US navy in the 1890s. Mahan (1890, pp.28–29) characterised six factors that affect what he called the sea power of nations: geographical position, physical conformation, extent of territory, number of population, character of people, and character of the government.

While the first three factors are more permanent, since they expose the nation's intrinsic geographic features, and therefore are less susceptible to change, the other aspects Mahan includes may allow some variation, suiting the national interests, political will, economic possibilities, technological capabilities and financial resources of the time. Hence, a huge number of combinations are possible, even without considering any other variables.

Ultimately, the nation's will, originating from and combined with the above cited factors and their given contexts, domestic and international, will result in an equilibrium of forces culminating in a viable navy that each nation may consider as necessary and achievable. In the Brazilian case, permanent factors include its continental dimensions (Figure 1.1), such as possessing the largest coastline in the region, which extends to 7,491 km (Central Intelligence Agency, 2019; Nag, 2018; Penha, 2011, p.92), facing the Atlantic Ocean, and having around 27,500 km of navigable rivers (Pompermayer et al., 2014, p.18).

Other factors will be discussed, such as why the BN also traditionally provided regular social and health assistance to many communities on the river basins of the Amazon and Pantanal regions,[3] whilst simultaneously developing a complex programme for nuclear-powered submarines. Moreover, the BN has been leading a maritime task force in the United Nations Interim Force in Lebanon (UNIFIL) since 2011.

Examples like these inspire the research question and show how diverse the roles of a navy can be. This leads to the theoretical approach first suggested by Ken Booth in the 1970s, and then adapted by Eric Grove during the 1990s, which explores the functions of navies. Such a question could be restated as what kind of maritime strategy Brazil has developed over the last 40 years, since the last moments of the Cold War, or what kind of navy Brazil has been wanting to possess and maintain.

The strategies and roles that navies play for their state policies, as previously suggested, are simply the results of that complex combination of factors and variables. The challenge in responding to the posed questions resides in disentangling the threads of that combination, and

[3] According to the Brazilian Navy, from 1985, when the first hospital assistance ship (NAsH, *navio de assistência hospitalar*, in Portuguese) started operating on the Amazon river, until around 2010, the medical and dental staff have assisted more than 4.2 million patients, and more than 1.5 million kilometres have been covered on the vast Amazon. The presence of the Navy there dates back to the mid-1860s (Rodrigues, 2010, p.15).

making sense of the motivations that impact the end result. Understanding these drivers as part of the context will allow us to understand the strategy itself.

Figure 1.1 – Continental challenges: coastline and waterways (Estado-Maior da Armada, 2017)

To begin with, I will analyse the divided yet intertwined international and domestic contexts, placing an emphasis on the discussion of the relationship between Brazil and its naval instrument. These aspects are intertwined because although navies are traditionally geared towards external actors, either competing or cooperating, they many times undertake domestic tasks and can be part of extended and complex decision-making processes carried out within state borders. At these levels of context, addressing trends would also favour understanding the links between drivers and strategies, prompting us to define the relevant timeframe in which we should view them. In this way, the international and domestic perspectives, discussed in the next section, will be explored through key events that encompass a reasonable period of time to assess trends in Brazil regarding strategic postures towards the maritime domain. In sum, both permanent and variant factors will always point to the tasks nations attribute to their navies, seeking to find a balance between what they want and what they are able to achieve.

In this sense, it is relevant to address what Corbett (2004) says, recalled by Geoffrey Till (2018, pp.25–26), when he underlines that influencing events ashore is what navies

traditionally undertake, in a more active/offensive way. For countries categorised as middle-powers, like Brazil, this might have a more passive/defensive meaning. Their navies might instead want to avoid influences from the sea on their own shores, as well as interference with their assets on jurisdictional waters.

Additionally, considering the full spectrum of current navies' employment, we might interpret Corbett's assertion in two ways. Firstly, we might ascribe it the usual meaning Corbett expressed in his work, which namely had a dispute, or ultimately, a conflict in mind. Secondly, we could relate it to the full range of activities in which navies are involved, such as the examples of the BN, not only concerning traditional employment in defence, but also many peacetime activities. In this way, the navy might also be influencing events ashore in a different and more active way because of its nation's societal needs. This kind of balance will subsequently be assessed in the Brazilian case.

1.3 Global trends and Brazil

Since domestic and international trends, within their respective contexts, clearly influence what a navy may become to its nation, the events of the 1980s offer an important starting point for understanding the timeframe for the BN. Identifying these trends from around the mid-1980s to the present day is an important way to uncover factors that have potential causal effects on Brazil and its navy.

1.3.1 International context

Internationally, any event that brings massive change to the strategic planning of powerful navies has the potential to affect other nations' navies to some extent, whatever their level of power. This can either be a result of some kind of alliance or partnership (or any kind of affinity, e.g. within Western countries), or, in cases where there is not a particularly strong link, a result of not being able to avoid the hegemonic influence such powerful navies exert, given their predominant experience on the matter of naval employment. Thus, some level of ascendancy is unavoidable.

Although a growing multipolarity has been on course since the 1970s, the sudden disappearance of bipolarity between the US and the then Soviet Union in the late 1980s forced strategists and planners to rethink which specific types of employment the most powerful navies should have (Baer, 1994, p.6; Till, 1994, pp.176–177; Waters & Jordan, 2016, p.16). This new perspective impacted weaker and regional navies' roles at different levels, most likely indirectly and in a longer-term way. This is especially so in the Brazilian case, as Brazil is a prominent regional leader, is contiguous to the North Atlantic space and has traditional ties with the US and its powerful navy. Thus, an important question is whether, and to what extent, this sudden disappearance of bipolarity had a significant enough impact to change the strategic perspective of a regional navy like Brazil's (Grove, 2014, pp.16–17, 1990, pp.238–239; Morris,

1987, pp.25–26).[4] In particular, its naval strategic thinking and the closely linked factors of its posture and maritime strategy must be analysed.

The end of the Cold War - Brazilian Navy and US Navy

Mahan and Corbett, renowned theorists on sea power and maritime strategy, have interpreted and theorised about the employment of navies – especially the more prominent ones – since the transition into and beginning of the last century (see Corbett, 2004; Mahan, 1890). Subsequent scenarios put these theories to the test. The two great wars stand out as major disruptions, but the ensuing period of the Cold War, despite the novelty of the nuclear variable (or maybe because of that), set the path for the consolidation of the US Navy as the most powerful globally. As suggested, this very fact has influenced many other navies, even the significantly smaller ones, calling into question their various uses of the sea, especially for military purposes. However, in the case of the BN, this influence must be considered in a wider context.

As previously suggested, geography and geopolitics always matter, and thus the proximity of the US and Brazil on the American continent is part of the equation. This, combined with the prominence of the US Navy, has reinforced its influence over the BN throughout history. More specifically, a substantial element is the link between Brazil and the US from the beginning of the 20th century. A US naval mission existed in Brazil from 1922 to 1977, with a brief gap between 1930 and 1936 due to Brazil's financial restrictions (Morris, 1979, pp.182, 186, 201).

After World War II (1939-1945), in the context of the Korean War (1950-1953), with rising concerns over the Soviet threat, the US sought to strengthen its leadership in Latin American countries, including Brazil. Under the umbrella of the Mutual Defence Assistance Act, passed by the US Congress in 1952, the Military Assistance Program (MAP) substituted the Lend-Lease Act of 1941, permitting continued transference of ships to Brazil at reasonable prices (Bruce, 1952; Svartman, 2011, p.80; Vidigal, 1985, pp.114–118).

After some isolated disagreements in military relations during the latter half of the 1960s and the early 1970s, tensions peaked with measures implemented by President Jimmy Carter's administration (1977-1981). This administration made military aid conditional on human rights aspects in the recipient nations[5] and exerted pressure on Brazil's nuclear ambitions with the 1975 partnership with the Federal Republic of Germany (Svartman, 2011, p.84). Brazil, then ruled by a military regime (1964-1985) under General Geisel's administration (1974-1979), felt its legitimate interests being undermined by the US, and unilaterally suspended the 1952 military assistance agreement, along with the naval commission and other measurers, in 1977 (Svartman, 2011, p.84).

Although some relationship in the form of contact between chiefs of staff and combined naval exercises continued, a gradual distancing persisted in the 1980s, reinforced by other

[4] Usually, the general term 'regional navy' relates to attempts to establish some hierarchy among navies. Morris (1987) includes Brazil in the category 'regional force projection navies'; while Grove (1990, 2014) slots it into the 'medium regional force projection navies'.

[5] That condition was established by the International Security Assistance Law, approved by the US Congress and signed by Jimmy Carter (Svartman, 2011, p. 84).

occurrences (Svartman, 2011, pp.84–85). One example was restrictions imposed by the US on Brazilian military exported products with American embedded technology to countries like Libya, Iran, and Iraq (Svartman, 2011, pp.84–85). Mistrust also arose among Latin American countries as a whole, as a result of the 1982 Falkland (Malvinas) War.[6] In practice, the US Government sided with the United Kingdom even with its supposed neutrality as mediator during the crisis period, before the UK's definite reaction against the Argentinean occupation (Freedman and Gamba-Stonehouse, 1991, p. 191). Some examples of US covert support for the UK included intelligence, especially signals intelligence (SIGINT), aviation fuel, critical stores and weapons systems, such as some missiles – air-to-air Sidewinder, anti-aircraft Stingers and radar-seeking Shrikes (Freedman and Gamba-Stonehouse, 1991, pp.189–190). This exposed the limitations of the Inter-American Treaty of Reciprocal Assistance (IATRA) – Rio Treaty – in the eyes of Latin American countries, consolidating the idea among the Brazilian military that the US was not a reliable ally (Gamba-Stonehouse, 1989, p. 110; Moniz Bandeira, 2010, p. 446; Svartman, 2011, pp. 84–85).

Despite this process of distancing from the late 1970s through the 1980s being a consequence of the cumulative effect of the cited episodes – human rights matters, arms sales, and conflict in the South Atlantic – it can equally be argued that this process reached a climax with the structural factor of the end of the Cold War (1989-1991), later in the period. At that moment in time, the US no longer needed the support of Brazil or other Latin American countries in the ideological battle against the Soviet Union. At the same time, there had been a growing desire for increased autonomy in Brazil, which also reflected on the naval aspect, as will be further explained. Yet, it could then be expected that, given the usual inertia in the naval domain and the US enduring naval prominence, even a reshuffle in US maritime strategy might have continued to exert a significant influence on Brazilian naval strategic thinking, potentially impacting on both material and doctrinal aspects, which remains to be assessed.

It has to be recalled that, during the Cold War, many of the ships composing the Brazilian fleet – including light cruisers, frigates, destroyers and submarines – were of American origin, leased or sold to Brazil, and remained in service in the 1990s, as will be further explored later (Svartman, 2011, p. 86).[7] Moreover, the anti-submarine role fulfilled by some of these vessels influenced countries like Brazil in the South Atlantic, as part of a non-official Western naval alliance against a Soviet threat, from the Second World War to the 1980s (Flores, 2002b, p. 12). This would not end overnight, as will be discussed.

[6] According to the Editorial Directive of the United Nations Secretariat, reference ST/CS/SER.A/42, of 3rd August 1999, the official nomenclature of the Falkland Islands in UN documents and publications is '*Falkland Islands (Malvinas)*' in English, and '*Isla Malvinas (Falkland)*' in Spanish. The expression 'Falkland (Malvinas)' will be used in this thesis. The cited directive still stipulates that, with regards to questions of sovereignty, a footnote may apply as the case requires: *A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas)*. (United Nations Secretariat, 1999). United Nations Secretariat 1999, *Nomenclature of the Falkland Island (Malvinas)*, ST/CS/SER.A/42, 3 August, viewed 2 January 2019, http://www.un.org/ga/search/view_doc.asp?symbol=ST/CS/SER.A/42.

[7] According to Svartman (2011, p. 86), besides the 41 units from the US in the 1950-1990 period, the following types of ships were acquired by Brazil from other countries in the same period: the UK – 10 (1 light aircraft carrier; 6 frigates; 3 submarines); Netherlands – 10 (tugboats); Federal Republic of Germany – 6 (minesweepers); and Japan – 4 (transports).

A single factor alone does not always explain significant changes in strategic thinking – particularly maritime/naval strategy. This thesis will examine a combination of other factors, both domestic and international, that may have had an influence, particularly those that came after this notable disruption. Yet, whatever the combination of factors, one should not disregard the end of the Cold War as a historic milestone. Many resulting configurations that have been observed since then have its footprint as part of their causation chain, exposing how strong a role it has played as an antecedent, although not always sufficient condition.

Besides the end of the Cold War and the US Brazil relationship in this context, another relevant event which occurred in the international arena and impacted Brazilian maritime strategy was the Law of the Sea. This will be explored next.

UNCLOS III

Even though UNCLOS only entered into force on 16 November 1994,[8] 12 months after the deposit of the 60th instrument of ratification, the long process that culminated in the early 1980s, after nearly 25 years of long discussions over the Law of the Sea, had already set global expectations. These expectations affected maritime relations and disputes, especially between the major maritime powers, usually developed states and referred to as traditionalists, and the others, usually developing states and referred to as revisionists.

The consolidation or new division of maritime zones – territorial sea and contiguous zones; exclusive economic zones (EEZ); the continental shelf, extended or not; and the Area; with respective rights and responsibilities – was feared by many to be a new source of potential disputes and conflicts, with the power to affect, to a greater or lesser extent, the tasks of naval or coast guard services. On the one hand, with greater strategic concerns, the maritime powers feared that what they referred to as the 'territorialisation' of the seas[9] would affect the long-standing tradition of the 'freedom of the seas' and, therefore, mobility as the essence of naval strategy (Booth, 1985, p. 45). In practical terms, they feared that the coastal states would have increasing bargaining power on the mobility of warships within the established zones (Booth, 1985, p.46). On the other hand, a more economic concern arose as developing states wanted to get their share of marine resource exploitation, deriving either from their EEZ and continental shelves or the Area, with its seabed. In the Convention, the latter is regarded as the 'common heritage of mankind', which worried the maritime powers even more as they were in a better technological position to operate these exploitations (Booth, 1985, pp.17–18).

One important reflection of these aspects is how they have affected maritime forces. With regards to the first group of countries, the developments of the Law of the Sea seemed to have added another layer to the costs of intervention in more competitive situations of naval diplomacy. However, as Booth recalls, when 'vital interests' are at stake, 'the use of the sea becomes a matter of capability rather than law' (1985, p.188).

As for the second group of countries, these developments would mainly encourage them to exercise their naval power within their own waters, stimulating, as Booth (1985, p.188) put

[8] UNCLOS was adopted and opened for signature on 10 December 1982, nine years after discussions started in the 1973 Conference (UNCLOS III), which followed the ineffective 1958 and 1960 Geneva Conferences, respectively UNCLOS I and II (United Nations, 2017).

[9] Territorialisation simply refers to the national administration of land extending seawards (Booth, 1985, p. 40).

it, a form of mini-navalism. This meant their new EEZ was to be patrolled, good order was to be maintained, and their maritime forces would be displayed as badges of maritime sovereignty (1985, pp.189–190). In short, 'warships will remain instruments of diplomacy for several countries, and defenders of maritime sovereignty of many more' (1985, p.170).

In the case of Brazil, it will be seen that a middle way would be the appropriate response. While constant efforts were made to maintain and develop the main combatants over the designated thesis timeframe, there was a growing need to order patrol ships and develop naval organisations related to the constabulary role that the BN plays. This arose due to concerns not only about Brazil's sovereign rights over maritime zones, but also over the need to maintain good order at sea.

In the end, in terms of the international context, we could argue that the end of the Cold War can be portrayed as a structural factor which mainly impacted security affairs because of changes to status quo and subsequent threat perceptions. On the other hand, UNCLOS arguably enabled a more encompassing transformation in reaction to the legal status of all nations towards the use of ocean spaces, their assets included, with practical effects, as will be seen in this thesis, in the particular case of Brazil.

Thus, the end of the Cold War, the US Brazil relations embedded therein, and the Law of the Sea established new paradigms that influenced the way Brazil viewed and acted towards the sea. This is especially true when analysing the additional factors present throughout the rest of the twentieth and twenty-first centuries, which correspond to the timeframe of this thesis. I will investigate how these events and other important factors might have affected, to various degrees, the relationship between Brazil and its naval instrument. I will consider its functions and possibilities of employment, therefore characterising Brazilian naval strategic thinking and ultimately Brazil's maritime strategy in this period.

If the international context could be seen in light of global trends relating to Brazil, then the domestic context, comprising the other important factors mentioned, could be evidence of Brazil relating to global trends, as will now be addressed.

1.3.2 Domestic context

External factors, however distant, play a significant role in influencing strategic postures, acting mainly as antecedent conditions. Domestic components, in turn, must play a stronger role as intervenient variables in the causation process due to the very fact that they are in closer proximity. However, one cannot ignore that both levels are normally entangled, especially in matters of state decisions related to security, to which naval/maritime policies and strategies invariably refer.

One notable domestic event in Brazil in the mid-1980s that corresponded with the end of the Cold War was the transition from a military government, after 21 years in power in a sequence of administrations, to a civilian one, which took office in 1985. Despite the navy's versatility, its main purpose of warfighting connects to the Clausewitzian trinity of war, where 'passion' is linked to citizens, 'skills' to commanders or the military, and 'reason' to the government (Clausewitz, 1979, p. 89). The leadership of the nation establishes its higher political objectives, either for the domestic or international arena. Then, the nation's strategic

position and the role of its military instruments have to adapt in order to be ready to fulfil these objectives from across many branches of the state.

A question to be answered in Brazil's case is whether there were significant shifts in those objectives with the military-civilian transition, especially in the naval aspect. Furthermore, it could be argued that the change in the nature of the government brought a new balance in that trinity, not only in terms of the government but also in terms of citizenship. Citizens, through specific segments of society, would be offered, at least in theory, the possibility of increased participation in society's destiny, not least in being able to choose their political leadership regularly and having the power to indirectly influence defence public policies.[10]

Additionally, in the wake of this political milestone, a new federal constitution was promulgated in 1988. This consolidated the core roles of the armed forces as well as the principles that have guided Brazil's international affairs ever since (Brasil. Presidência da República, 1988). These principles, in connection with the United Nations' Charter, would form the basis for the employment patterns of these same forces (United Nations, 1945).

Although occurring only in the middle of the proposed timeframe, another equally relevant factor, which came about as a result of the transition to the civilian government, was the creation of the MoD in 1999. This saw a shift from each service being an isolated ministry to all being part of an integrated system. The Ministry of Defence was created by the complementary law number 97 on 9 June 1999, during the administration of President Fernando Henrique Cardoso (two mandates, from 1 January 1995 to 1 January 2003). It replaced the three ministries that previously existed – the navy, army and air force – which then became subordinates to the MoD as separate commands (Command of the Navy, Command of the Army, and Command of the Air Force). The four-star flag officer, the head of each service, then changed from the title of minister to commander. Together with the three military ministries, the advisory organisation on military matters, known as Armed Forces Staff, had ministry-status and was directly linked to the president. It was subsequently dissolved, thus enabling the Defence Staff ('*Estado-Maior Conjunto de Defesa*', in Portuguese; nowadays called Armed Forces Joint Staff, '*Estado-Maior Conjunto das Forças Armadas*'), now inside the MoD structure, to directly advise its minister and indirectly the president (CPDOC-FGV, n.d.). Traditionally, the heads of the three military ministries and Armed Forces Staff had been in the military. The creation of the MoD represented a paradigm shift in Brazil, because it allowed a civilian to lead the military services together for the first time in Brazil's republican history. As a consequence, it naturally meant a loss of some control for the military, particularly with regard to budget control.

This meant a momentous power structure change for the military within the central administration, with consequences for defence, in general, and for naval policies, in particular. As a result, and perhaps most importantly, the new government composition could establish

[10] José Sarney, Vice-President of Tancredo Neves, was sworn in on 15 March 1985, after Tancredo had been indirectly elected on 15 January of the same year. He became the first civilian president in the period called '*Nova República'* ('New Republic' in English). On 17 December 1989, Fernando Collor de Mello became the first directly elected President after the military regime; he was sworn in on 15 March 1990 and resigned on 29 December 1992, avoiding an impeachment process. The then vice-president, Itamar Franco, was sworn in as president, with a mandate to 31 December 1994.

policies that could impact resource allocation, and therefore, the efforts and priorities of the military. It also remains to be seen whether these changes meant greater civilian influence on the objectives of naval policies, as will be addressed later on.

In sum, this section highlighted the significance of these events – the domestic political transition, the new constitution and the creation of the MoD. This thesis will proceed to investigate to what extent they impacted Brazilian naval thinking. Finally, both domestic and international factors convey the value of structural power. Although they may not have had a direct effect on the naval/maritime strategic posture of Brazil, or its thinking, they are certainly necessary aspects of change in its characterisation, which this thesis will examine.

Prior to that, though, it is worth presenting the main features of the BN, in itself and as it relates to other navies, so that one can start to familiarise oneself with the central actor of this thesis. This will be discussed in the next section, before the many perspectives that compose maritime strategy are explored.

1.4 Central actor

By understanding the current basic structure of the BN,[11] as well as how it compares to other navies, the reader will be in a better position to address the chapters that follow. In other words, this will serve as the foundation for the more detailed empiricism of the next chapters, which will construct the analyses and will provide the answers to this thesis's central research questions.

Using the rankings and categorisations determined by various authors, the thesis will identify the relative value of the BN, in comparison to other navies. It is important to add that these relative values are linked to the military role *per se*, combined with the diplomatic role in its more competitive fashion. This is expected due to the focus of navies on the defence of the highest interests of their states within worst-case scenarios. However, considering the broad approach this thesis will follow, there are other tasks for navies with high values to pursue. Many of these interests are domestically oriented. This aspect is particularly relevant for multipurpose navies, such as the BN, which spread their efforts across various forms of the three traditional roles addressed by Booth (2014), Grove (1990), and other authors, as will be seen.

These two approaches will be useful as a starting point in understanding some of the strategic choices made in the distant and more recent past. Additionally, they will also help us to understand how the Brazilian case must be initially embedded in the discussion of maritime strategy, with contributions from distinct perspectives.

1.4.1 Brazilian Navy's inherent characteristics

The BN, like the army and air force, has been subordinated to the Ministry of Defence since 1999, and is the oldest of the three services. It is headed by the Commander of the Navy, a four-star admiral, and is advised by the Admiralty and Navy Staff (*Estado-Maior da Armada*

[11] Although the current organisation obviously differs from past structures, it is still a valid reference point for those unfamiliar with the Institution.

- EMA), which act as a general manager for the seven sectors of the institution, each headed by a four-star admiral. Nowadays,[12] those sectors correspond to the following areas: naval operations, finance, material, personnel, navigation, nuclear and technological development, and marine corps, with its own material, personnel, and doctrine sectors. The naval operations sector, headed by the Command of Naval Operations (*Comando de Operações Navais* – ComOpNav, in Portuguese), directly oversees nine naval districts, dividing the whole country area, with its waterways, lakes, river basins, and maritime[13] zones. He also oversees the Commander-in-Chief of the Fleet (*Comando-em-Chefe da Esquadra* – ComemCh, based in Rio de Janeiro), as well as the Fleet Marines Force Command (*Força de Fuzileros da Esquadra* - ComFFE) and the Command for Maritime Traffic Control (*Comando do Controle Naval do Tráfego Marítimo* - COMCONTRAM).[14] The ComemCh, where the main combatant ships are, subsumes three commands: surface, submarine, and naval aviation (Brasil. Ministério da Defesa, 2012a, pp.81–94).

The collection of means is represented by around 100 ships spread across the country. Alongside this, there are naval aviation squadrons located in the fleet base area for fleet support (in the 1st Naval District geographical area) and in three naval districts (5th, 6th and 9th) for smaller ship support. Furthermore, marine units also provide the fleet and naval districts with support. Around 22 out of these 100 ships compose the fleet, including surface combatants, submarines, multi-purpose, logistical and amphibious ships, demonstrating the possession of a relatively wide range – although not large number – of warfighting capabilities.

The Figure 1.2 geographically displays Brazil's physical challenges and also suggests the logic behind the current organisational distribution of the naval institution throughout the country.

As mentioned, the BN also carries out constabulary roles, which are described as 'subsidiary assignments', and will be discussed later. Out of the nine naval districts, seven have direct control of minor ships, such as patrol, hydrographic, auxiliary, and hospital ships. About 45 out of the 100 mentioned are patrol ships, which contribute to that role, although they are also prepared for defence at a very limited level. Their tasks are conducted on coastal maritime or riverine areas. One naval district – the 4th, East of the Amazon and West of the Northeast regions – is responsible for both types of areas. Meanwhile, two districts – the 9th, West of Amazon region; and the 6th, Pantanal region – are responsible solely for riverine areas. The latter two are also responsible for five hospital-ships, which provide regular health and social assistance to the riverine population.

[12] This thesis covers the period from 1985 until the end of 2018.

[13] In this thesis, the term 'maritime' in Brazil's case, in terms of areas of operation of its navy, will often include inland waterways such as lakes, rivers and the like.

[14] In October 2018, COMCONTRAM changed its denomination to '*Centro Integrado de Segurança Marítima* – CISMAR', in Portuguese, which means 'Integrated Centre for Maritime Security' (Marinha do Brasil, 2018c), as will be further explored in the thesis. Also of note is the Navy's Electronic Warfare Centre (*Centro de Guerra Eletrônica da Marinha* - CGEM), directly subordinate to ComOpNav. However, it will not be considered for the purpose of this thesis, due to its more subsidiary role.

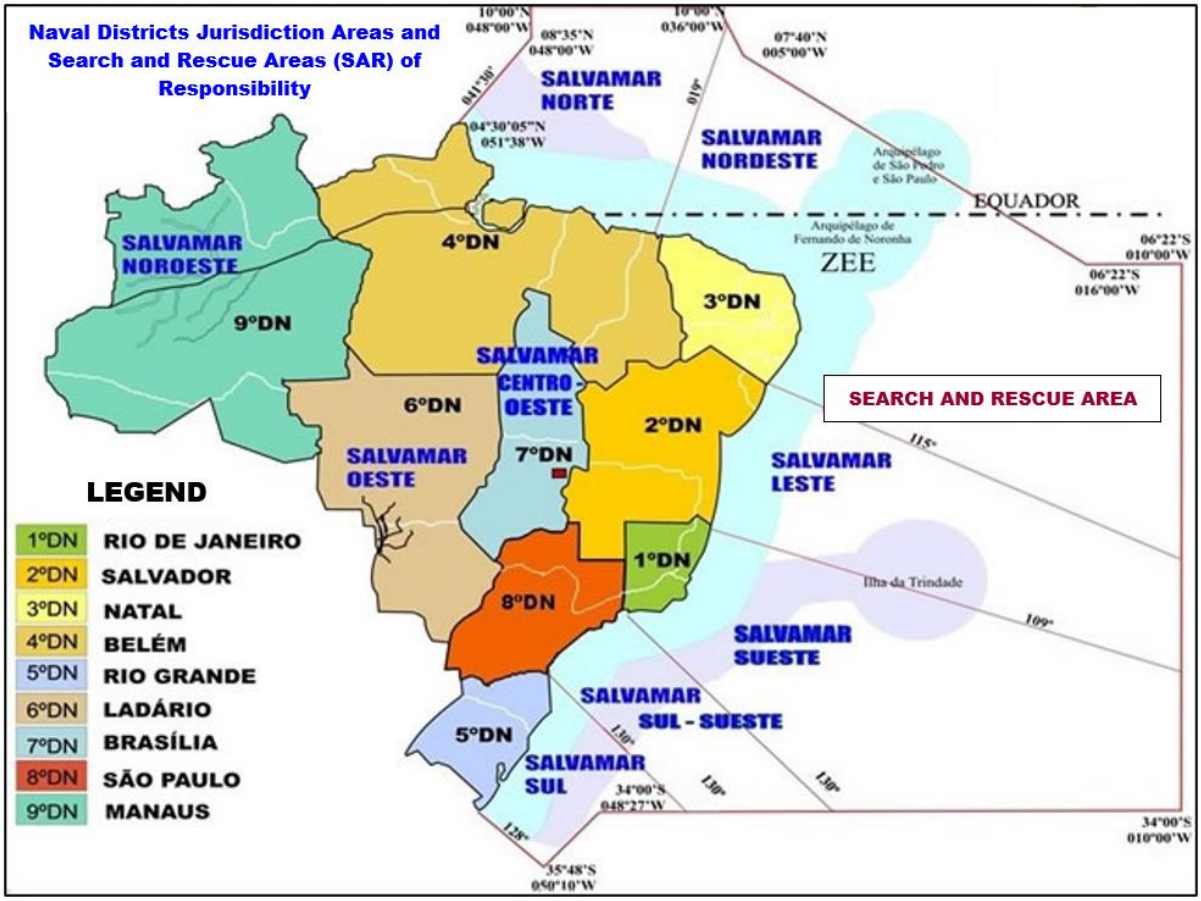

Figure 1.2 – Naval Districts Jurisdiction Areas and Search and Rescue Areas of Responsibility. Adapted from Marinha do Brasil (2018f)

Another relevant branch relates to the hydrographic, oceanographic, polar and research categories, comprising around 21 ships, which act not only in maritime but also in riverine areas. This branch highlights a remarkable traditional interaction between the navy and the scientific community. Its influence is shown in a significant range of projects, including the Antarctica programme, the nuclear programme, and the scientific survey, which was conducted over many years to produce results such as the ones delivered to the Commission on the Limits of the Continental Shelf (CLCS). The Commission's analysis has since permitted the extension of the outer limits of the Brazilian continental shelf, assuring Brazil its sovereign rights to explore and exploit these resources. These rights have a range of implications in terms of policing and military roles, which will be addressed later.

In this sense, the Commander of the Navy has also been assigned the position of 'Maritime Authority' (*Autoridade Marítima*, in Portuguese) to carry out the subsidiary assignments mentioned. Other organisations within the navy act either as 'Advisors' of the Maritime Authority (the Chief of Navy Staff), 'Representatives' (usually Commanders of the Naval Districts), or 'Agents' (subordinated naval organisations). Each representative is responsible for a specific subject, including navigation safety (shipping, waterway traffic safety, and search and rescue), the environment, marine resources, marine scientific research, Antarctic matters, and international organisms.

Several small crafts and boats, exclusively assigned to the constabulary to ensure the safety of navigation activities, are part of another type of naval organisation – port authorities. These are then subordinate to the naval districts. These port authority organisations are positioned at one of the three levels. From the highest to the lowest ranked these are called *Capitanias*, *Delegacias*, and *Agências* (in Portuguese). In total there are around 60 of these port authority naval organisations throughout the country.

In general, there are five levels of means and activities involving ships, crafts, and boats, from the top military missions to the bottom constabulary ones: the fleet (mainly committed to the military role), the patrol ships (mainly committed to the constabulary role, but also military to some extent) the port authority, including crafts and boats (committed almost exclusively to the constabulary role), the hospital ships (committed to social assistance roles), and survey ships (committed to survey roles). As expected, there might be varying degrees of overlap, depending on the limits of each type of means.

Having reviewed the navy's general structure and organisation, I will now go on to compare it to other navies, before addressing its strategic thinking and postures. The point here is to unveil not only the naval instrument itself but also the potential relational aspects it shares with other navies, not least because this is largely and ultimately inherent to any strategic assessment.

1.4.2 Brazilian Navy compared to others

Although rankings of navies cannot offer a great level of accuracy, given the myriad types of existing navies, with several distinct purposes and types of criteria observed, they still give us a good sense of comparison. Accepting a reasonable grade of inaccuracy, another point to be considered is the natural lack of knowledge about the real level of operational readiness, given that sensitive information is not always available. Conrad Waters (2016) illustrates this in the very case of Brazil, by questioning, for example, whether its ranking should have been adjusted, given the 'doubtful operational availability' of its aircraft carrier, *São Paulo*, at that moment in time (Waters and Jordan, 2016, loc. 294/8246).[15] Even though these rankings are based on capabilities, their quantitative aspects are usually more accurate than their qualitative ones, which obviously should be complemented by other analyses.

Despite some inaccuracies, many have attempted, as Geoffrey Till (2018, p.147) points out, to describe and analyse the notions of what could be said to be small, medium and great categories for navies, in an attempt to rank them. One of the authors, Michael Morris (1987) explores this in his work *Expansion of third-world navies*, citing some previous studies. In this work, he offers some critiques based on the shortcomings of methodologies and results, and

[15] In fact, in 2017, the Commander of the Brazilian Navy, Admiral Leal Ferreira (tenure from 2015 to 2019), announced the relinquishing of the aircraft carrier (NAe, *Navio-Aeródromo*; in Portuguese) *São Paulo* as a viable means, given the significant financial effort necessary for its modernisation (personal communication, March 21, 2019). At the same time, he negotiated with UK Royal Navy the acquisition of the HMS Ocean in 2018 (personal communication, March 21, 2019), a carrier that would be assigned as the BN's flag ship, as will be seen in section 3.2.2. Despite *São Paulo*'s relatively short life in the BN, Admiral Moura Neto, Commander of the Navy from 2007 to 2015, argues in favour of its invaluable relevance in upgrading BN's capability in substitution of the light aircraft carrier (NAeL, *Navio-Aeródromo Ligeiro*; in Portuguese) *Minas Gerais* (personal communication, March 27, 2019).

although concedes that there are some valid points (1987, pp.63–66). He alleges that such comparisons had not offered an adequate assessment of the relative importance of the then so-called third-world navies (1987, pp.33–52), presenting a bias by minimising their importance (1987, p.63) and the potential impact they 'can have in home waters and constricted geographical settings' (1987, p.64). The cited authors include Ken Booth (1977), Howard Eldredge (1978), Lowell Jacob (1977) and Mark Janis (1976). Thus, Morris (1987) appears to agree with Booth (1977), that for major naval powers 'peace and war is something which happens over there', while 'for most navies […] strategies begin and end in the contiguous seas' (Booth, 2014, p. 22), as mentioned. He then invites more discussion of what happens 'over here', which certainly is a great part of the BN's case.

The period his studies span is not coincidental as it corresponds with the process of decolonisation and the consequent emergence of many navies from the Third World after the Second World War and then more remarkably in the 1970s (Morris, 1987, p. 7). Morris counts more than 120 countries in that category, with 104 of them considered to have functioning navies at that moment (1987, p.5). He structures his ranking in six levels, the top being called 'regional force projection navies', rank six, which, at that moment, included Brazil, Argentina and India, and the bottom, referred to as 'token navies', rank 1 (1987, p.24).[16] Two benefits of Morris's work on Third-World navies in the 1970s and 1980s is that it encompasses state interests relating to the sea in an international context and helps us to understand what was happening in 1985, the beginning of this thesis's research timeframe.

In Eric Grove's (1990) categorisation, based mainly on Morris's (1987) work, as well as on an article from Steve Haines, *Third world navies, myths and realities* (1988), he produced a hierarchy of nine levels of navies. Grove (1990) added three more levels to Morris's (1987) six, including the then categorised First and Second Worlds, inverting the numerical sequence, and slightly changing Morris's rank six designations, including the term 'medium'. The three levels added from the top downwards were rank one, 'major global force projection navy – complete', which related only to the US; rank two, 'major global force projection navy – partial', which related only to the then Soviet Union (in its last moments); and rank three, 'medium global force projection navies', which related to Britain and France. Brazil still populated the then 'medium regional force projection navies', Grove's rank four (Grove, 1990, pp. 236–240) or Morris's (1987) rank six. It is fair to say that this could be re-evaluated now. Brazil operated a light aircraft carrier, NAeL *Minas Gerais*,[17] between 1960 and 2001, until it was replaced by the French *Foch*, named Nae *São Paulo* after its acquisition. It stayed in active service, operating A-4 aircraft, until 2017, when plans for its modernisation were abandoned,

[16] Morris presents 104 Third-World navies distributed over the following six ranks (navies in that rank/percentage compared to the 104):
6 – Regional force projection navies (3/1.9%);
5 – Adjacent force projection navies (5/4.8%);
4 – Offshore territorial defence navies (10/9.6%);
3 – Inshore territorial defence navies (12/11.5%);
2 – Constabulary navies (12/11.5%); and
1 – Token navies (62/59.9%), including four landlocked navies (Bolivia, Paraguay, in South America; Malawi, Mali, in Africa) (Morris, 1987, pp. 34–35).

[17] Former HMS *Vengeance*, was a 1942 Colossus Class, British aircraft carrier. It was loaned to the Royal Australian Navy from 1952 to 1955, and then returned to Britain and sold to Brazil in 1956. It underwent a four-year conversion in the Netherlands in order to be capable of operating heavier naval aircrafts.

resulting in it being decommissioned in 2018. Nevertheless, there is still an acquisition programme in place for new carriers, although with no foreseeable fund availability, as well as a nuclear-propelled submarine programme in progress. Grove recently, in 2014, readjusted his 1990 nine levels. He abolished rank two, due to the collapse of the Soviet Union, and considered the rise of many navies in the ladder, such as China, India, South Korea, Singapore, Denmark, and Norway (Grove, 2014, pp. 16–18). His ranking now goes from one to eight. He describes four to eight as 'small navies in terms of capability' (2014, p.18), with Brazil in Grove's new rank three (2014, p. 17).

Another system of classification is provided by Todd and Lindberg (1996), in their book *Navies and shipbuilding: the strained symbiosis*, as summarised by Conrad Waters (2016) in his *Navies in the 21st century*. It is similar to Grove's and Morris's ranking, highlighting two larger groups divided into 10 levels. The first group of navies, 'blue water', includes four ranks of 'power projection': 1. 'global-reach', 2. 'limited global-reach', 3. 'multi-regional', and 4. 'regional'. The second group, the 'non-blue water', goes from 'regional offshore coastal defence', through 'inshore coastal defence', 'regional offshore constabulary', 'inshore constabulary', and 'inland waterway', to 'token navies' (Waters and Jordan, 2016, sec.1.0).

Brazil, in the current moment, seems to find itself well in rank 4, 'regional power projection', the lowest position of the 'blue water' group, given the defining capabilities: 'not-at-sea fleet air support other than organic helicopters, therefore limited to area of land-based aircraft range for power-projection missions' (Waters and Jordan, 2016, loc. 268/8246). Nevertheless, the definitions of rank 3, 'power projection missions in regions beyond own EEZ in addition to homeland defence' (2016), may accommodate Brazil, in relation to some of the BN's operational activities with warships. For example, joining other navies in the West African coast and in the Mediterranean, leading the UN maritime task force for UNIFIL.[18]

Again, considering the few classification systems presented, Morris's (1987) study has the benefit of reflecting the set of Third-World navies, with Brazil included in his top rank six, within the last moments of the Cold War. This also coincides with the beginning of the current research timeframe, as noted. Another benefit is that his work provides 'a more specific and systematic assessment of the impact of [the then] third-world naval expansion' (1987, p. 21), going beyond the limitations he pointed out in his critiques of previous studies. In that sense, focusing on this large group of navies, with their individualities 'related to one another […] considered in specific contexts' (1987, p. 21), provides greater detail and offers more conclusions for the Brazilian case at that time, which will be considered further.

[18] In the context of comparing navies, but maybe less measurable, Admiral Ilques emphasizes the cultural aspect of the Brazilian people, reflecting in its Navy personnel, characterised by tolerance towards differences, given its attributes of a multi-ethnic country (personal communication, April 1, 2019). This trait, according to him, has helped in many difficult situations in UNIFIL, which is characterised by multinational effort (personal communication, April 1, 2019). Accordingly, Admiral Moura Neto defended such endeavour of the BN as a very important political action at the world stage (personal communication, March 27, 2019). Additionally, Admiral Mauro Cesar pointed that the BN was successful in this mission not only before the international audience but also the domestic one (personal communication, March 26, 2019). Admiral Guimarães Carvalho, on the other hand, reinforces the need to do more and better, expanding a more vigorous cooperative naval diplomacy towards West African countries, for instance (personal communication, March 29, 2019). At the same time, while he acknowledges and praises the political dividends with a mission like UNIFIL, he expresses his concerns about overstretching BN's capabilities for a long period of time in a distant area of operation (personal communication, March 29, 2019).

Whatever the details of each ranking, Brazil seemed to fit in at a level of [medium] regional force projection navies at that moment, which is enough for now to aggregate an initial notion about its relative position among navies, as was the purpose in addressing this topic here. This in turn may provide elements for assessing its strategic naval thinking that could be linked to further debates on maritime strategy.

Another point that deserves consideration is the limitations of these classifications regarding the values each navy delivers, in all its dimensions, to its nation. This relates to what Morris (1987) and Booth (2014) describe as what is 'happening over here'. This, ultimately, refers to the plain relational value in the binomial nation-navy, because navies are an expression, at least in theory, of their nation's necessity and decisions, for whatever purpose, directed either outwards or inwards, peace or war-related, as mentioned in Section 1.1. However, those classifications also make sense, since navies are ultimately made to project power from their nation's shores, defensively or offensively, against opposition either at sea or on land. That kind of assessment is naturally more tangible in contributing to the analyses of navies' capabilities, when pitted against one another.

On the other hand, if the navy has a significant set of tasks that focus inwards or close-to-the-shore, with activities akin to, for example, constabulary roles, those classifications between navies may lose some value. Even if we consider that many combatant ships are able to conduct these tasks, it would be generally unfavourable in terms of cost-effectiveness. To sum up, even a navy that is deemed to be medium or small in size in the eyes of those who are concerned with the pure warfighting aspect may have significant value for its nation in other important direct or indirect roles that benefit its own society. Therefore, the binomial nation-navy has great relevance.

Thus, this kind of assessment must be nuanced depending on the approach we apply to navies. It should also consider other dimensions of navies' employment, aside from traditional roles, if one wishes to make a better appraisal of what we are referring to as the naval strategic thinking of a specific nation. As will be seen, this points to a wider consideration of maritime strategy, whose precise borders seem not to have reached a global consensus.

In whatever configuration a nation shapes its navy and whatever the contours of its maritime strategy, any state along with its military segment responsible for the maritime domain will have to execute some sort of simple or complex strategy, explicitly or not. It should be capable of articulating means and ways to acceptably achieve established goals with the available resources in a given society. In order to understand this articulation, especially given the diversity of the relationship between Brazil and its navy, it is essential to address what the BN does as its main functions.

As will be seen in the next section, this leads us directly to the conceptual framework established by Booth (2014), Grove (1990), and others, in their strategic triangle metaphor. This can be linked, to a lesser or greater extent, to the maritime strategy concept, which in turn can be related to somewhat unfolding concepts such as maritime security and other types of strategy, such as strategy of means. It is the linkage between these elements – functions of navies, articulated in a maritime strategy of any shape or form – and their many constitutive parts (e.g. ships in a force structure; policies, doctrines etc.), together with other manifestations (e.g. naval publications), that will arguably constitute themselves into naval strategic thinking, in the terms of this thesis.

1.5 Maritime strategy

In order to achieve the aim of understanding Brazilian naval strategic thinking, we need to build a particular theoretical framework. The variety of roles played by the BN leads us to investigate a set of concepts that will form this framework and allow this aim to be achieved. Thus, in this main part of the literature review, as indicated, I will firstly address the necessary starting point – Booth's (2014) and Grove's (1990) ideas on the functions of navies. Secondly, I will also address the concept of maritime strategy through a variety of perspectives that will contribute to the theoretical grounds. Both will support our aim of tackling the gaps identified. The variety of roles discussed in both theorical approaches points to this multiple assessment as the most effective way of achieving this thesis's aim. At the same time, I will analyse these concepts in order to verify whether they can be refined or extended to better explain the Brazilian case.

By either identifying and then tackling, or refining or extending the gaps, these concepts will arguably demonstrate the novelty and originality of this thesis. Additionally, it seems fair to say that in the English literature on the development of maritime strategy, very little has been said about Brazil's experience, as hinted by Admiral Hill's (1986) comments, mentioned earlier. Finally, at the end of this section, I will draw conclusions – more specifically defining the objectives – which will frame the thesis. However, next I will start to explore the functions of navies' approaches, as the basis for the subsequent maritime strategy perspectives discussed, relating it to aspects of the BN, but also indicating examples of how navies like the UK's and Australia's express their activities in reference to this approach.

1.5.1 The strategic triangle metaphor

In his seminal work, *Navies and foreign policy* (originally published in 1977, and lastly republished in 2014), Booth established the basis to address the utility of navies as instruments of foreign policy – the diplomatic role – especially for major states (2014, p.9). His work also sheds light on the varied functions all nations can assign to their navies. Equally important, Grove's work, *The future of sea power* (1990), written in the twilight of the Cold War, in part aimed to revise Booth's triangle or trinity for the then new moments of the late-1980s. Both triangles show the three roles navies can exert as instruments of states: military, diplomatic, and policing. Grove (1990) prefers the term 'constabulary' to 'policing', describing the use of the sea as their unifying factor (Booth, 2014, p.15; Grove, 1990, p.232).

Contextualising these works, Booth's concern about the use of navies at the end of 1970s, on the one hand, arose in an era in which he saw increasing complexity in maritime affairs, from the 1950s to the 1970s. One causal issue included the rise of the Soviet navy in the 1960s and its interactions with the so-called Third-World navies (2014, pp. 87–88). Another was the foundation of recently independent states, in the wake of the process of decolonisation, with their growing nationalism, desire for maritime sovereignty and their expectations of resources promised within the scope of UNCLOS III (2014, pp.241, 275–279).[19]

[19] The first and second conferences concluded in 1958 and 1960, respectively, and the third, then underway, started in 1973 (Booth, 2014, pp.241, 275–279).

On the other hand, Grove's (1990) concern, in a somewhat distinct temporal context, took into account the developments of the previous decades, such as the rise of nuclear weapons, the increased exploitation and enclosure of the oceans (the Law of the Sea was already in force), and the internationalisation of maritime activities (1990, pp.4, 5, 9). Considering both the new technologies of the time and past experiences, he intended to address the questions of how sea power was going to develop in the next decades and whether a new theory of sea power could be developed. This could potentially consolidate old ideas, expressed by thinkers such as Mahan (1890) and Corbett (2004), and new ones, made explicit via the recent technological changes (Grove, 1990, pp. 3–10).

Given the focus Booth (2014) provides on foreign policy and its inherent link to major powers, a key question arises for this thesis. How would the utility of the navy to the Brazilian state be expressed through Booth's lenses? Importantly, the international context has changed a great deal since then. Although competition has persisted, even with the end of bipolarity, cooperation, as the other extreme of the same 'diplomatic role', has gained much ground. Thus, at least in the Brazilian case, when it comes to naval diplomacy, this approach has been important during the period this thesis discusses, as will be seen. In this sense, Booth's words are still fitting:

> The student of strategy has many tools to help him think about the almost *unthinkable* use of the most destructive weapons we have: ironically, he has far fewer tools to help him think about the many *thinkable* uses of modern naval power. (Booth, 2014, p.10)

The Brazilian diplomatic approach is valid even if it can be argued that the limitations of its naval capabilities are the main reason for its sole focus on 'thinkable uses'. Out of the three categories within the diplomatic role highlighted by Booth – 'negotiation from strength'; 'manipulation'; and 'prestige' (2014, pp. 18–19) – the most achievable, at least in recent times, has been the latter. In Brazil's case, this involves not only external influences but also internal factors. I argue that this is the case even if the *thinkable uses* are considered to be more related to the more competitive extremes of the diplomatic role rather than the cooperative role. The challenge in dealing with navies as diplomatic tools is still there, whatever the case.

In the policing role, Booth highlights the categories of 'coast guard responsibilities' and 'nation-building', but arguably he does not explore them deeply enough, given his focus on foreign policy (2014, pp. 17–18). Grove (1990) debates this role in more detail, given later developments, especially with UNCLOS, addressing sovereignty, fully or partially, over distinct maritime zones. Given the prevalent defensive strategic nature of Brazil and other circumstances, Booth's favoured topics related to coast guard responsibilities – 'sovereignty'; 'resource enjoyment'; and 'maintenance of good order' – as well as the ones of nation-building – contribution to 'internal stability' and 'internal development' (2014) – require more intense consideration in the Brazilian case, as will be seen in the later empirical chapters.

This role of sovereignty in maritime zones also prompted the 'military role' in countries like Brazil, where the main concern regarding Booth's peacetime categories was usually 'conventional deterrence and defence' (Booth, 1977). 'International order' and 'extended deterrence and defence' also have their importance (mostly the former, as will be discussed later). 'Strategic nuclear deterrence' is outside of Brazil's scope, unless cases of protection via

extended deterrence can be included. For instance, an example of this was the protection the US provided to Europe, particularly during the Cold War.

On the whole, a good summary of the maritime environment in the age of Booth's cited work is presented within his analysis, considering the international legal regime which was developing rapidly as a result of the UN Conferences on the Law of the Sea. In his view, the 'problems' of the Law of the Sea were therefore the result of three pressures:

> Firstly, the arrival of new technologies which have made the exploitation of the sea easier […]. Secondly, perceptions about declining resources on land have increased the significance of the resources at sea. And thirdly, the whole issue has been galvanised by the powerful nationalism of the developing countries. (2014, p. 275)

The actuality of Booth's thoughts, derived from the very political character of those matters, was expressed in the two main temptations he then stated would follow these pressures. He stated that the first temptation would emerge from developed states, while the second would emerge from both, but especially developing ones. The first relates to the desire of developed nations to be 'technologically capable to grab what they can, and explore it before conditions change' (2014, p. 275). The other relates to the ability of 'ambitious countries of all types, […] to make extensive maritime claims, and hope to make these ambitions concrete by securing a change in the law' (2014). These factors certainly influenced, and still influence, under the new law, the claims of countries like Brazil. For example, this has had implications for the legal extension of its continental shelf, which is intrinsically connected to its naval policy. It is not a coincidence that the recent developments led to the Brazilian creation of the Blue Amazon concept in the first half of the 2000s, which has underpinned and provided the basis not only for its policing/constabulary roles but also for its military ones, which will both be further explored.

Regarding Grove's (1990) approach, his reassessment of the context prompts him to share other nuances with Booth's (2014) trinity. Grove's (1990) concerns, though, are more related to difficulties in establishing boundaries between those roles. He sometimes draws on James Cable's (1994) considerations on the boundaries of 'gunboat diplomacy', as opposed to 'showing the flag' (Cable, 1987, p. 38). Grove (1990, p. 195) argues that Cable (1987) helps to establish these boundaries, defining the distinctions among these roles centred on the ends rather than on the means.

Following Cable's (1987, 1994) ideas, Grove (1990, p. 234) classifies the 'diplomatic role' either as 'showing the flag', currently the case of Brazil's naval activities within this role, or as 'gunboat diplomacy'. Cable (1994, pp.103, 190) points out, in one of his many examples, the Brazilian dispute with France in the so-called 'Lobster War' of February 1963, which will be addressed in the next chapter.

Another of Grove's indications is of interest for this thesis due to the possibility of overlap between the diplomatic and constabulary roles. As, by nature, diplomacy relates to inter-state relations, and enforcement could be applied under agreed international law, a constabulary role could also work as diplomacy (Grove, 1990, p. 234). The maritime task force in UNIFIL, the operation that Brazil and its navy has been leading in Lebanon since 2011, could well be an illustration of this aspect.

As in Booth's (2014) case, the military role in the Brazilian instance could be prompted as far as maintenance of sovereignty and defence are concerned. It is therefore worth highlighting Grove's (1990) concerns over the difficulty in defining boundaries between the roles. This led him to recognise that an 'interlocking set of circles' (1990, p. 235), as an extension of Booth's (2014) triangle, would be clearer. The reason, as he contends, is that a particular naval event can find itself in one, two or even three circles, depending on the context (Grove, 1990, p. 235).

Thus, while the maintenance of sovereignty is interpreted as part of the military role, it may be linked to the constabulary one. This overlap of responsibilities must be more common for countries such as Brazil, where defensive actions closer to their shores seem more likely than the effective projection of force from the sea against other territories. After all, again, as Booth stated, for major naval powers 'peace and war is something which happens over there', while 'for most navies […] strategy begins and ends in the contiguous seas' (Booth, 2014, p. 22). Keeping these differences of perspectives in mind might help understand distinct approaches for each role, in their own varieties, and, consequently, for the strategic stance of the country in question as well.

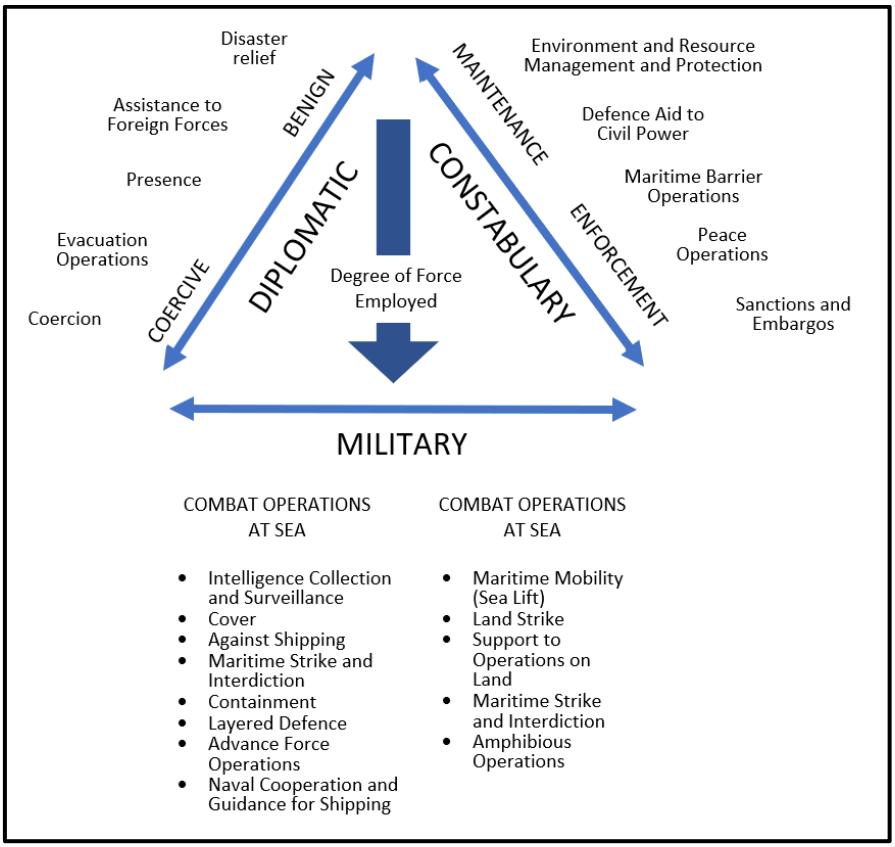

Figure 1.3 – Royal Australian Navy. The roles and tasks of the maritime forces (Royal Australian Navy, 2004)

In contributing to these different perspectives, before delving into Brazil's case, it is worth showing how two distinct navies consider this functions of navies approach. The Royal Australian Navy (RAN), for instance, increased the details of this approach to give a more

accurate idea of its sets of roles and tasks, as shown in the Figure 1.3 (Royal Australian Navy, 2004).

The Royal Navy, in turn, in its recent Joint Doctrine Publication 0-10 UK Maritime Power (Development Concepts and Doctrine Centre, 2017), uses the triangle (Figure 1.4) with its functions evolved from the original to describe the contemporary UK maritime forces, highlighting the same previous versatility of its maritime forces in conducting those interrelated roles (Development Concepts and Doctrine Centre, 2017, pp.51–53).

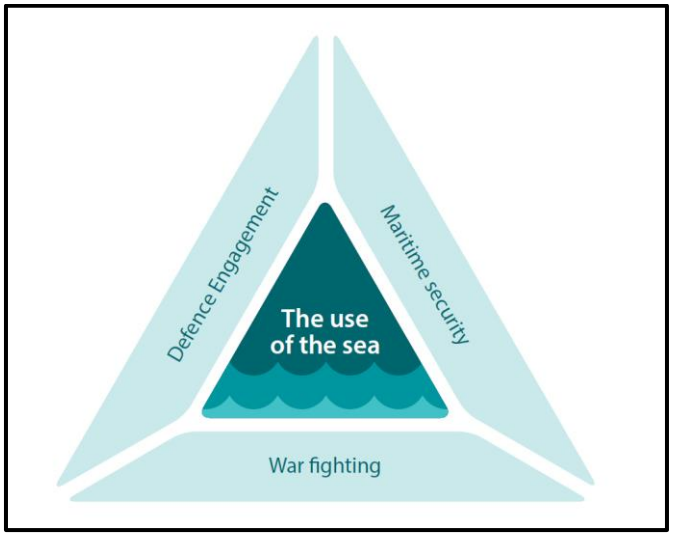

Figure 1.4 – The three roles of the UK maritime forces (Development Concepts and Doctrine Centre, 2017, p.51)

In the case of Brazil, the assessment of the evidence in the current and next Chapters will provide us the elements to help build its own approach, arguably a more accurate representation of the BN reality, going beyond Booth and Grove. As a whole, the more varied the roles and associated missions and tasks of a navy, such as BN, the more we should expand these theoretical considerations like Booth's and Grove's, as will be seen. In that sense, some ensuing questions should help build the path between the research question and the answers to be found. Especially when, as the authors stress, context is a fundamental basis for the theoretical framework (Booth, 2014, p.17; Grove, 1990, p.235).

Context can be variable, not only across various naval actors at the same moment, whose levels of power are quite distinguishable – as seen in section 1.4.2 – but also over time, which brings to mind the choice of the current study's timeframe.

One question could be whether the functions of navies presented by Booth (2014) and Grove (1990) are enough to explain the Brazilian naval set of functions. As the empirical chapters will show, the variety and importance of roles seems to push for a more encompassing representation, as mentioned before. This, as a result, may provide more relevant explanations regarding the strategic stance that is usually underpinned by the practice of these and other functions.

Notwithstanding, as the functions of navies' approaches are just a starting point, they must be complemented by the perspectives of maritime strategy. This will be achieved in the

next section, which will also discuss elements that will enable us to better understand Brazil's particular type of maritime strategy and, at the same time, its naval strategic thinking.

1.5.2 Maritime strategy perspectives

1st Perspective: Maritime Strategy as History, Practice and Thought

When addressing the term 'maritime strategy', it might seem straightforward to assume that it can be understood as the use of (or threat to use) naval force to achieve some political end. Although this basic definition may seem easy to comprehend, scholars such as Professor John B. Hattendorf (2013) have debated whether this definition is satisfactory, as seen in his text '*What is maritime strategy?*', revised and updated since the mid-1990s. The likely variation in the answers might demonstrate that a straightforward answer is not so trivial. Hattendorf didactically explains that, despite the simplicity of the question, the answer is indeed complex. He states that in order to address the mentioned question, one should consider three important aspects: history, practice, and thought (2013, p.1).

Hattendorf's (2013) work suggests that while history is a component that creates some complexity in defining the term, it, at the same time, is the key to improving the chances of a more comprehensive understanding of what maritime strategy could have been or can be now and in the future. It is therefore possible to infer that this concept has developed through history, since reality, from which concepts are inductively formed, is always changing. In sum, combining the variations of Hattendorf's concept with those three aspects will be the first perspective regarding maritime strategy to be used in this study, as will be explained at the end of this section (1.5.3).

2nd Perspective: Naval Strategy, Maritime Strategy and Grand Strategy

Hew Strachan (2014) also addressed issues surrounding the term in his book *The direction of war: contemporary strategy in historical perspective*. In this work, he questions whether we should use the term 'Maritime strategy' or 'naval strategy'. On the one hand, he reminds us that, to 'British ears, naval strategy implies something that the Royal navy does, and therefore carries the ultimate sanction of armed force' (2014, p.151). He also stresses that, if military strategy encompasses all armed forces,[20] the expression 'naval strategy' is redundant. On the one hand, he explains that the term 'military strategy' would be a tautology because, according to traditionalists, all strategy is military. Thus, the term 'military strategy' would be justifiable by the growth of the term 'grand strategy' or 'national strategy',[21] and consequently would lead to the tendency to use the word 'strategy' as a general synonym for

[20] Strachan indicates that the conception of 'military strategy', as encompassing all armed forces is a more transatlantic one (clearly referring to the US), whereas the British would use 'military strategy' in a narrower sense, referring only to armies (Strachan, 2014, p. 151). This thesis primarily adopts the former sense, since the tendency in Brazil is to refer to documents with all services as military, although in a more general sense the term 'military' (*militar*, in Portuguese) is more related to the Brazilian Army.

[21] According to Strachan (2007, p.30), since the Second World War, the former was used more frequently in the British context, and the latter more in the American context.

'policy'. On the other hand, maritime strategy would be broader than naval strategy, 'potentially embracing all the nation's use of the sea, economic as well as defensive' (2014, p.151). It remains to be seen how 'grand strategy' relates to 'maritime strategy', as articulated by Milevski (2016), and addressed below.

The linkage between naval strategy, maritime strategy and grand strategy offers a second perspective, which encourages us to focus more on the analysis of drivers at the national level – above the naval level – such as Brazil's constitution, maritime policies, and defence policies and strategies (see Chapter 3, Structural Perspectives).

Reinforcing the links between maritime strategy and grand strategy, in his work *The evolution of grand strategic thought*, Milevski (2016) attempts to trace the development of the term and highlights the role of the maritime strategists Mahan (1890) and Corbett (2004) in connecting the two strategic aspects:

> These two theorists developed concepts of strategy or explicitly grand strategy which marked the first transformation of the concept into an idea larger than solely military strategy, primarily by associating non-military instruments with grand strategy. This sea change in the meaning of grand strategy derived from their consideration of maritime as opposed to military strategy. Their work also marks the first major theories of grand strategy, allowing for full exploration of the limits of how they considered the idea and how they theorised its practice and implementation. This change of meaning which Mahan and Corbett initiated forms the basis of most modern definitions of grand strategy. (Milevski, 2016, p. 9)

Thus, maritime strategy is important for grand strategy because, when it accounted for more than just military force, it was within the maritime context that grand strategy first developed (Milevski, 2016, p.27). This, in a certain way, forms a link between the definitional difficulties stated by Hattendorf (2013) when responding to what maritime strategy is and the limits of what it shows itself to be in its particular context. Later on, those considerations will be important in considering a somewhat malleable concept of maritime security, and even maritime strategy, in current debates.

One important point raised by Milevski (2016) is how context is imperative in shaping the way the concept of grand strategy has evolved and has been used. This is particularly relevant in this study of the Brazilian case as its context shows peculiarities in its understanding of a grand strategy relating to its tributaries, such as maritime and naval strategies. Naval strategic thinking arguably has strong links to this, as will be shown later. In that sense, Milevski's points add to the second perspective mentioned.

3rd Perspective: Narrow Maritime Strategy and Broad Maritime Strategy

In *Seapower: a guide for the twenty-first century*, Geoffrey Till (2018) facilitated the work of those concerned with identifying the manifold nuances of 'maritime strategy', especially since the end of the Cold War. He clearly, and rightly I believe, puts the concept within theoretical realms, which renowned scholars such as Mahan (1890), Corbett (2004), Castex (1994) and others have said a great deal about in distinct approaches, with particular regards to the circumstances of time, space and the necessity of their nations (2018, pp. 61–106). Arguably, that is why it is important to build on these types of nuanced approaches in

dealing with the Brazilian case. The Brazilian case presents enough particularities to justify this approach in terms of maritime strategy and the thinking that usually underpins it, at least partially, whilst deriving from it at the same time. In other words, in elaborating Brazil's naval strategic thinking, this research applies itself to an environment where a specific type of maritime strategy is worth assessing.

Till (2018, pp.88–96) adopts a similar approach when he points out the examples of France, Germany, Russia, Australia, the Netherlands, India, and even the US, where they try to find a balance in (or react to) the mix of ideas elaborated by Mahan (1890) and Corbett (2004), to find their own approach. In this sense, the Brazilian case seemingly requires more theoretical sources – or a greater mix of ideas. This is important to better explain its own approach, given the diversity of roles that the BN is responsible for, contrasting with the more war-centric focus of these two traditional thinkers of maritime strategy, and others like Castex (1994), given the circumstances of their time and space. Undoubtedly, the warfighting role is central to the Brazilian case, but obviously it is not the only aspect to consider.

Reinforcing his concerns for the nuances of maritime strategy, and in order to address this concept to supposedly take advantage of its complexity, Till raises questions rather than offering answers, which he expects to be formulated as the reasoning develops (2018, pp. 64–68). The value of these questions resides in the fact that they should guide reflections upon maritime strategy in relation to each specific context, without dismissing the already constructed thinking available from sources of historical experience. This points to this thesis, where, based on the roles played by navies, the specific Brazilian naval context will be analysed, considering information already presented. Furthermore, the exploration of new information will aid in better explaining the reality of Brazil's specific maritime-naval domain.

One of these questions is related to the different ranks of navies, in asking whether principles of maritime strategy are universal, that is whether they should apply to everyone (2018, p.65). This type of question matters most to the current research, since the degree of validity of thinkers like Mahan (1890) or Corbett (1994) to navies other than the most powerful ones can be debated, especially due to their greater war-centric focus.

Although some authors like Colin Gray (2008), Ken Booth (2014), and Bernard Brodie generally disagree on this (Till, 2018, p. 65), the validity of its universality can arguably be confirmed for two reasons. On the one hand, this can be argued because other authors have presented their ideas beyond the well-known Mahan-Corbett pair, like Castex (1994, p. xxxvi), who was mentioned earlier. On the other hand, Mahan's (1890) and Corbett's (2004) ideas do not disregard the actions of the weaker in their principles, such as a denial strategy as a method of disputing commands (Corbett, 2004, p. 229). Therefore, the specific context, either in terms of level of power or geopolitical space, will always have to be considered in the application of any principle. In short, Till's (2018) conclusion in the citation below is suitable to the assessment of the current study.

> […] local conditions both geographical and strategic-cultural do have a major effect on the manner in which such broad ideas are put into effect. […] [C]onceptions of maritime strategy are universal, but the extent to which individual countries can (or even want to) realise them may be highly particular. Even so, one of the very basic questions that ought to be asked of any maritime strategist is the extent to which their conclusions apply generally, or whether they apply only to their country of origin and at the time of writing. (2018, p.65)

As indicated by Till (2018), Hattendorf (2013) and others, the concept of maritime strategy and its principles (as many others) are deemed context-dependent, with historical experience being the foundation which helps clarify each approach. Therefore, a recurring question is how traditional concepts and theories of maritime strategy apply to a case like Brazil.

Mulqueen, Sanders and Speller (2014) importantly highlight this questioning and thinking when they investigate the roles of smaller navies in comparison to larger ones:

> Historically there has been a tendency for people to approach maritime strategy from a perspective built upon an examination of the activity of larger navies on the assumption that the resultant concepts and principles will apply to small navies as much as to large ones. (2014, p.2)

In his text *Maritime strategy and the twenty-first century*, Till (1994) conducted this thinking using context-dependence in his assessment of a broader understanding of maritime strategy implications with the end of the Cold War. Till's reflections also make sense for navies like Brazil's, not only due to its evolving historical context since the end of the Cold War, but also with regards to its particular configuration.

Till's elaboration of maritime strategy led his analysis to the 'spectrum of naval tasks' (1994, pp.179–180), which inevitably relates to the functions of navies' approaches. This was clear in the main topics of his text: 'war-fighting', 'shades of naval diplomacy', and 'good order at sea' (1994, pp.181–196). Obviously, this is a cautious approach for any strategy analyst to employ, to assess and reassess any maritime strategy. This, undoubtedly, validates the functions of navies as the starting point of this thesis. As Till explains:

> Given such a 'lapse into barbarism', it is far from clear what the role of the military of the twenty-first century will be. The military planner's task is not much more complex than the familiar [though historically often very difficult] question of identifying who one might have to prepare to fight, where and when. Instead, it is the much more fundamental issue of deciding what the actual function of the military of the twentieth-first century will be. If the management of turmoil rather than the fighting of wars is to be their future task, the military themselves face fundamental change. (1994, p.179)

All these nuances of the term maritime strategy and its context dependence, as described by Till and others, reinforce the need to consider the malleable limits between broad and narrow approaches to maritime strategy, which could be taken as a third perspective. Hattendorf's (2013) approach, drawing on the functions of navies, also contributes to this perspective. In this study, the Brazilian case will contribute to this perspective, adding its peculiarities to refine the concept.

4th Perspective: Types of Strategy – Declaratory Strategy, Operational Strategy and Strategy of Means

Interestingly, the French tradition in maritime strategy starting with Admiral Castex (1878-1968) seems to offer alternative and complementary sources, after the troubled moments of the *Jeune École*. The contributions of his extensive work, mainly his *Théories Stratégiques*, which was written during the inter-war years, include the concept of 'general strategy'

(*stratégie générale*). This was an enlarged concept which linked policies and tactics but also went beyond the so-called 'particular strategies' – air, land and maritime – and thus started to encompass non-military fields. The post-war nuclear era, with its added complexities, helped to embolden this type of concept.

According to Eugenia Kiesling, Castex (1994, p.44) noted that a general strategy would be what Corbett (2004) refers to as a 'maritime strategy'. Yet, in fact, Castex (1994) goes beyond this, using the term *stratégie générale* to specify strategy at the national level, showing correspondence to 'grand strategy' in the Anglo-American world (1994, p.44).[22] Other authors seem to have followed Castex's ideas, either modifying, extending or complementing his interpretations, or updating or adapting them to more contemporary and complex realities. Among the former group were French authors who coined distinct terms similar to and based on his 'general strategy' concept: Raymond Aron (1905-1983) with his idea of 'enlarged strategy', General Andre Beaufre (1902-1975) with 'total strategy', and General Lucien Poirier (1918-2013) with 'integral strategy' (Wedin, 2016, p. 41).

In the late 1960s, the branch followed by Poirier via 'integral strategy', unfolded into particular concepts which contribute to explaining the details of strategies in times of peace (Poirier, 1987),[23] until today. At the same time, however, Poirier recognises the limits of his concept, when he admits that it is more an ideal type than a real practice of states (Coutau-Bégarie, 1999, p. 396):

> I have advanced the concept of integral strategy because it is necessary for the coherence of an encompassing and unitary theory ... But this is an abstract notion to which no positive content corresponds: we do not see, in genealogy, that a political actor has ever been able to effectively practice an integral strategy unifying economic, cultural and military strategies. (Poirier, 1997a, p. 49)

In any case, the abstract notion of integral strategy (general strategy) might further our understanding of the nuances and particularities of some nations' maritime strategies, as seen below. Integral strategy should not simply be viewed in terms of its economic, cultural and military components, but also in terms of two other main components: strategy of means[24] and operational strategy[25] (Poirier, 1997b, pp. 42–43). These two modes of strategy, according to

[22] Castex defines *stratégie générale* as 'the art of managing the totality of the forces and resources of a nation in war and peace. It unites them into a homogeneous whole at the service of a single will. It transcends, coordinates, and disciplines the individual strategies of the various components of the struggle: political, military, naval, air, economic, colonial, psychological, and others' (1994, pp. 44–45). Kiesling reminds us that the term 'national strategy' was already applied in French as the army's highest level of strategy (1994, p. 45).

[23] In the context of the then recently inaugurated nuclear age of the post war era, integral strategy was a sign of the times when the distinction between peace and war became more blurred. This consequently led to the continuity of strategy, which could neither be restricted to wartimes, nor to the military dimension only (Coutau-Bégarie, 1999, p. 387). Poirier (1987, p. 113) defines *stratégie intégrale* as the 'theory and practice of manoeuvring all actual and potential forces of any nature, resulting from the national activity, aiming to accomplish all the ends defined by the general policy'. Coutau-Bégarie reminds us that, for Poirier, the integral strategy combines 'the results of the three strategies[,] economic, cultural and military ... in a unity of thought and action that combines their goals and their ways-and-means' (Coutau-Bégarie, 1999, p.395; Poirier, 1987, p.114).

[24] Strategy of means is defined as 'the set of intellectual and physical operations whose purpose is to conceive, realise and organise, in coherent systems, all the specific forces of its general strategy; forces capable, qualitatively and quantitatively, of the effects of transformation necessary to achieve the goals assigned to it by its contribution, decided by the political authority, to the integral strategy' (Poirier, 1987, p. 124).

[25] Operational strategy, in turn, is 'the second mode of any general strategy, resulting from the relation between its purpose and its ways-and-means' (Poirier, 1987, p. 126). It 'aims at the conception, the preparation and the

Poirier, were the best way to translate any general strategy into action, addressing the two levels of comprehension: that of the ends and that of the ways-and-means (Poirier, 1987, p. 121).

Another mode of strategy suggested by Poirier, which authors like Coutau-Bégarie (1999, pp.403, 419) and Joseph Henrotin (2011, pp. 37-38) usually combine with the two previous modes, is declaratory strategy. In the French elaborations on strategy, declaratory strategy appears with operational strategy as a component of deterrence in the context of nuclear threat. Given the incredibly high risks and tensions involved, it contributes to a dissuasive manoeuvre, where the material capacities are enhanced by discourse (Coutau-Bégarie, 1999). Thus,

> the operational strategy that would be implemented in case of failure of deterrence will be preceded by a declaratory strategy designed to guide the behaviour of the opponent and to prevent miscalculation. (1999, p.403)

In his effort to design what would be *The foundations of naval strategy in the twentieth-first century*, Henrotin (2011), besides exploring declaratory strategy, the strategy of means, and operational strategy as components of military strategy, also considers naval strategy, along with the spatial, informational, air, and land strategies, as part of operational strategy (Henrotin, 2011, p.37, 2013, p.39). In turn, in his book *Maritimes strategies for the XXI century: the contribution of Admiral Castex*, Lars Wedin (2016) explores a broader concept of maritime strategy, travelling through the concepts of Castex (1994) and Poirier (1987, 1997a, 1997b), trying to update and adjust them to a more contemporary reality in the maritime domain.

While under Poirier integral strategy would accommodate military, economic, and cultural strategies, for Wedin (2016) it is understood as a more complete set of components, necessary in order to better understand and achieve various political objectives. Among these components would be maritime strategy in its broader sense, as well as other aspects such as economic, industrial, defence, diplomatic, and morale strategies, all of which contribute to integral strategy (2016, pp.123–124). This broader concept of maritime strategy obviously includes the military side, but goes beyond this, to consider wealth-building strategy, a strategy of resources (equals strategy of means), and naval strategy (2016, p.124). Furthermore, Wedin is clear in accepting, as Poirier states, that naval strategy, being a 'strategy in action', is in fact an operational strategy (2016, p.112).

In that sense, similarities exist between Henrotin's (2011) and Wedin's (2016) theories, with the common point being strategy of means and operational strategy. These are included as components of military strategy in the work of the former author, and of maritime strategy in the work of the latter. However, the latter component obviously has a broader scope, as seen above. Regardless, for both authors, both military strategy and maritime strategy contribute to an integral strategy, as noted above.

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conduct of the operations carried out with the means above, the systems of forces, to reach, by acting on the will of the adversary, the objectives that the State policy assigns to the military strategy. The use of the forces can be real (effective engagement in an armed confrontation) or virtual (the forces weighing on the will of the enemy, by persuasion or deterrence, only by their existence, their presence, therefore, by their capacities of action)' (Poirier, 1997b, p. 43).

Another point of comparison for the two theories is that Wedin (2016) does not address the concept of declaratory strategy. To be fair, he addresses the real and virtual employment of forces when he discusses operational strategy (naval strategy), the latter employment having a lot to do with the dissuasion. However, he does not address the importance of the discourse in deterring the opponent, which was raised by Poirier (1997a, 1997b) and explored by Henrotin (2011).

All these approaches, which stem from Castex's (1994) work, form the basis of a fourth perspective on maritime strategy. Despite the nuances articulated by some authors, the relevant construct from this perspective is the set formed by strategy of means, operational strategy and declaratory strategy. This composes maritime strategy, which, in turn, contributes to the integral strategy, at the top, akin to a grand strategy. The link between integral strategy and maritime strategy alone relates to the second perspective, but the focus here is on the three components mentioned – strategy of means, operational strategy and declaratory strategy.

Therefore, these French-origin concepts can be used as useful lenses for analysing the labyrinth of maritime strategies in the Brazilian case. This is particularly pertinent, as maritime strategy should not only be war-centric, but should also consider strategy for peacetime to a substantial extent as an enlarged concept, and consider distinct types of strategies which can shed light on Brazil's particularities. Moreover, it is wise to recall Kiesling's words, as quoted in Castex (1994, p. xliv):

> Today, as modern technology undermines the very notion of command of the sea, all navies share the need, once faced by only those of the second rank, to vindicate their expensive existence in terms more Castexian than Mahanian.

This seems to validate the just expanded concepts based on Castex's thoughts, since they go further than the more classical approaches, even from Castex's point of view itself.

5th Perspective: Maritime Strategy and Maritime Security

The fifth perspective of maritime strategy relates to maritime security, since, as Bueger and Edmunds (2017) explain, this concept could encompasses national security, including, in turn, naval strategy and seapower, therefore linking it back to maritime strategy (Bueger, 2015, pp. 160–161; Bueger & Edmunds, 2017, p. 1299). Maritime security, as a concept of international security, was coined in the 1990s, and has been receiving growing attention due to events and occurrences like maritime terrorism since 2000, modern piracy off the Somalian coast, maritime crimes, the blue economy, and maritime environmental protection and resource management (Bueger & Edmunds, 2017, p. 1293).

After the UN's International Year of the Oceans and the report from the Independent World Commission on the Oceans (IWCO) (both in 1998), which addressed a wide range of military and non-military threats to international order at sea, the US led the effort in increasing the focus on concerns related to the maritime domain in the first decade of the current century (Bueger & Edmunds, 2017, p.1297).

The event of the USS Cole being attacked by an extremist group in the port of Aden in October 2000, along with the 11 September 2001 attacks, added momentum to the focus of security, giving room to the National Strategy for Maritime Security (NSMS) in 2005 and, as

a result, the operationalisation of the '1000 Ship Navy` concept of 2005-2006 (Bueger & Edmunds, 2017, p.1297). This represented the 'recognition that the challenges of maritime security were too complex and diffuse for the US to handle on its own'(2017, p.1297). As the authors highlight, other countries and organisations then tended to adopt similar strategies, such as NATO's Alliance Maritime Strategy (2011), the UK National Strategy for Maritime Security (2014), the EU Maritime Security Strategy (2014), the French National Strategy for the Security of Maritime Areas (2015), the G7 Declaration on Maritime Security (2015), and the African Union (AU) with its 2050 Africa's Integrated Maritime (AIM) Strategy followed up by a Charter on Maritime Security, Safety and Development in 2016 (Bueger & Edmunds, 2017, p. 1298).

The consequent conclusion suggests that those approaches had to be considered holistically, understanding the maritime domain as an interlinked security complex, where threats and challenges are not watertight. Furthermore, maritime security should be taken as a collective problem of political order, where no single actor acts alone (Bueger & Edmunds, 2017, p. 1299). In that sense, this holistic approach is presented by defining the four dimensions of maritime security – national security,[26] marine environment,[27] economic development.[28] and human security[29] – all of which, as will be seen, have interesting connections with the Brazilian case, more particularly, the concept of Blue Amazon, which will be assessed in the next chapter.

Departing from the three sides of Booth's (2014) /Grove's (1990) triangle, Bueger and Edmunds (2017) interestingly point out Ian Speller's (2014, p. 150) assertion that the maintenance of good order at sea (constabulary side) has not traditionally been the subject of theoretical analysis in the same way as wartime activity (military side) or diplomatic roles (diplomatic side) (Bueger & Edmunds, 2017, p. 1296). This fifth perspective also reinforces the need for this thesis to use the functions of navies as the starting point to subsequently

[26] National security '[…] [corresponds] largely to […] traditions of naval strategy and sea power. […] [It] involves the development and application of naval power, incorporating military power projection and homeland defence at sea, as well as the use of warships to protect maritime trade routes and commerce through functions including deterrence, surveillance and interdiction' (Bueger & Edmunds, 2017, p. 1299).

[27] The marine environment '[…] incorporates [..] issues such as marine pollution, vessel safety and regulation, maritime search and rescue, the state of ocean health, pollution and the impacts of climate change. […] [Its] genesis […] [comes from] international efforts to regulate shipping and other activities at sea through intergovernmental organizations such as the International Maritime Organization (IMO) or coordination bodies such as UN Oceans. […] They represent a manifestation of wider environmental security concerns at sea and in coastal areas. [...] Environmental degradation caused through fishery crimes or other environmental crimes, moreover, has the potential to increase the grievances of coastal populations and lead to maritime instability' (Bueger & Edmunds, 2017, p. 1299).

[28] The so-called 'blue economy', 'underpins much of the maritime security agenda', considering that '[a]round 90 per cent of global trade travels by sea, and marine resources such as fisheries or offshore oil are key economic assets' (Bueger and Edmunds, 2017, pp. 1299-1300). Besides, it is stressed that '[global] commerce can be threatened by piracy, criminality or other forms of maritime disruption' (2017, p.1299).

[29] Human security 'addresses issues […] in the sense of the insecurities experienced by individuals and local communities as well as those affecting states. Human security issues penetrate much of the maritime security agenda. The protection and sustainability of fisheries, for example, underpin the livelihoods of millions of people living in coastal regions, while these same groups are often the most vulnerable to the adverse impacts of climate change or maritime pollution. Such concerns relate not only to the security of the individuals and coastal communities themselves, but also to the role of human insecurity in facilitating the emergence of activities such as piracy or criminality as alternative sources of employment in regions of significant economic deprivation or breakdown' (Bueger & Edmunds, 2017, p. 1300).

investigate the interaction of Brazil's case with more complex concepts surrounding maritime strategy, as indicated.

Other Authors

Besides those perspectives, two contemporary authors, Peter Haynes (2015) and Peter Swartz together with Karin Duggan (2011), provide us an interesting approach on maritime strategy when addressing the development of American case, especially in the post-Cold War era. They are relevant not only because this case certainly represents a rich experience for any navy, but also for the way they present it. They all provide a chronological-thematic approach, starting before the end of the Cold War (Haynes offers a brief summary from the 1940s to 1980s, and then addresses short periods of time until around 2014, while Swartz and Duggan address specific topics over the decades between 1970 and 2010).

This approach, to some extent, will be used in this thesis, beginning in Chapter 2, before the thesis timeframe, and delving into it in the subsequent Chapter. The difference, as will be seen, is that the American case, representing a powerful and well-structured, mature navy, presents a wide array of evidence over an already long period of time, not equivalent to the Brazilian case. The nature of BN's evidence will lead us to search for significance through a specific chronological-thematic approach, considering the bigger timeframe in two periods, divided by the creation of the MoD in 1999, but not only that. At the same time, each topic within the structural perspective and formal expressions of maritime strategy (sections 3.1 and 3.2) and each theme within it will be tackled chronologically trying to identify its evolution overtime, so that they can help characterise Brazilian naval thinking during this time.

Coming back to the authors, Haynes argues that after the end of the Cold War it took almost twenty years for 'a real maritime strategy' to emerge in the United States with the release of 'A Cooperative Strategy for 21st Century Seapower' (CS21) in October 2007 (2015, p.4). He considered CS21 as a 'maritime strategy as classically understood' (2015, p.3), and explains:

> A maritime strategy has always been more directly concerned with the relationship between the state and global markets than with strategies associated with land power or airpower [...]. A maritime strategy ties economic, political, and security interests, and offers a holistic, less militarized, and less threat-centric worldview that, in this case, was free to emerge with the disappearance of the Soviet threat. (2015, p.3)

Haynes's critique points to the fact that U.S. naval strategy was the result of a set of American vital interests, U.S. strategy and U.S. military purpose that were defined in terms of the threat and not of the system (Haynes, 2015, p.5). One of the aspects of his critique indicates the Department of Defence's tendency to impose a centrally controlled programming and budgeting process. In doing so, he argues, the civilian leaders 'shifted the focus of U.S. strategy-making from the ways-means-ends dialectic to a myopic focus on determining the means' (2015, p.6), which, I argue, opposes, respectively, the focus of strategy itself to a somewhat isolated strategy of means. In this sense, Haynes contends a holistic approach to maritime strategy, one in which there is a systematic assessment of means and ends, applying strategy as a bridge for the realisation of systemic goals (2015, p.101, 132).

Evidence of this approach is presented in the new CS21 with Haynes's assertion that 'never before in a Navy strategic statement had the Navy's constabulary role enjoyed such a prominent place alongside its other two roles of warfighting and diplomacy' (2015, p. 190). It is important to note that the context for this approach is the same mentioned in the maritime security approach, with the US leading the effort in the first decade of the current century.

A reflection of this approach in CS21 was also that, as Haynes explains, 'to many in the Navy the definition of the fleet was encompassing a wide variety of land-based activities and population centric missions' (2015, p. 191). An example of this was the Indonesian tsunami of 2004, where the Navy's disaster relief efforts contributed not only to part of the humanitarian effort but also, indirectly, to the war on terror, by gaining the sympathy of the Indonesian people (2015, p. 191). The positive strategic effects of these relief efforts at the local level, without the need for a large American footprint on shore, came as a surprise to many Navy leaders (2015, p. 191).

Admiral Mullen, acting as the Chief of Naval Operations (July 2005 – September 2007), was perhaps most responsible for these changes. He encountered much resistance from the traditionalists, for instance Admiral Nathman, the then head of the U.S. Fleet Forces Command (February 2005 – May 2007). As Haynes indicates, the following comment best summarises the essence of Mullen's idea: 'Rid yourselves of the old notion that maritime strategy exists solely to fight and win wars at sea, and the rest will take care of itself' (2015, p. 235). The following note in the CS21 is aligned with this comment: 'While defending our homeland and defeating adversaries in war remain the indisputable ends of seapower, it must be applied more broadly if it is to serve the national interest' (2015, p. 232). In Haynes's assessment, Admiral Mullen's comment, in effect, revealed 'a missing dimension in American naval (and military) thinking that had caused the United States to neglect for too long the full range of political and economic effects that military power can achieve' (2015, p. 235).

Nathman's view, as articulated by Haynes, on the other hand, argued that:

> only a fleet built around the requirements for major combat operations could manage crisis, deter war, and, failing that, prevail in a wider variety of scenarios. No one denied the need to address the emerging missions. But specialized platforms built for niche missions were not versatile enough across the spectrum of warfare. In a period of fiscal restraint and recapitalization, the Navy needed to spend its limited funds on flexible, multipurpose platforms built foremost around the requirements of major combat operations. Rationalizing the fleet in terms of a threat and major combat operations would be more effective in prying funds from Congress than rationalizing the fleet in terms of abstract arguments of a constabulary nature. (2015, p. 193)

Perhaps, Haynes's main contribution was to reinforce the importance of a wider and more systemic approach to maritime strategy, making the political and strategic effects a naval power can provide more apparent, especially in the moments after the 9/11 event. In this sense, his work closely correlates to Bueger and Edmunds' (2017) approach to maritime security.

Despite the immense distinctions between the U.S. Navy and the BN, there are interesting links between Haynes's argument and the Brazilian case. The BN already has a broad purpose stated in its mission, as will be analysed in Chapter 3. It is closely related to the fact that, besides warfighting and diplomatic roles, it also plays the constabulary role and

beyond in Brazil's jurisdictional waters (inland waters, territorial seas, exclusive economic zone and extended continental shelf), as will be assessed.

At the same time, it can be said that this assessment of Brazil's case would represent a combination of Admirals Mullen's and Nathman's views. While it is important to keep an eye on the systemic effects, domestically and internationally (in Brazil's case, more regionally), that the navy can create more holistically, it is also relevant to focus on a kind of strategy of means that is as achievable and coherent as possible with a warfighting capability. Finally, Haynes's case might also add to Brazil's by shedding light on the links between the BN and Brazil's grand strategy, within a wider approach to maritime strategy. In this sense, it becomes clear that these critiques of Haynes can be understood as being the result of strategy as a construct whose borders are elastic, depending on the size of the system considered. In sum, Haynes mainly contributes to the second (linkage between naval-maritime-grand strategies), third (broader versus narrower approach to maritime strategy) and fifth (maritime security) perspectives. The Brazilian case can extend and refine these concepts with its particularities.

Regarding Swartz and Duggan, their work is meant to provide advice to the U.S. government, as they conduct research for the Center for Naval Analyses, CNA, a not-for-profit organisation. It is about the development of U.S. Navy strategy and policy from 1970 to 2010, whose purpose is 'to identify, organize and present data (and context) on development and influence of USN capstone documents, 1970-2010', and 'to analyze the data and make comparisons, judgements and recommendations to inform current and future USN capstone document efforts' (Swartz and Duggan, 2011, pp.3–5).

In a few words, the main questions of Swartz and Duggan's work are centred on the significant changes OPNAV organisation went through in the U.S. Navy over these years. Using the chronological-thematic approach, their work will inspire this thesis by making it search for similar patterns of change in the Brazilian case that will tell about its naval strategic thinking. In that sense, the contribution of Swartz and Duggan's work to this thesis might be both instrumental and about the subject matter.

In conclusion, beyond Haynes and Swartz contribution, five perspectives were explored in this section. The first included history, practice and thought as important aspects of a maritime strategy. The second established the linkage between naval strategy, maritime strategy and grand strategy. The third brought broad and narrow approaches to maritime strategy together. The fourth highlighted declaratory strategy, operational strategy and strategy of means as components of maritime strategy. Finally, the fifth perspective suggested that maritime security is an essential concept related to maritime strategy in contemporary times.

After all authors' work has been addressed, it seems obvious that a single approach to maritime strategy is not enough to explain the Brazilian case, with its many particularities. Thus, the functions of navies' approaches and the defined perspectives arguably contribute to our assessment of the object of this study – Brazilian naval strategic thinking, centred on its maritime strategy – from distinct angles, making this assessment more accurate. In this way, the gaps presented within each perspective tend to be filled by the others and, especially, by the Brazilian evidence in the next empirical chapters, which will also contribute to extending and refining the concepts involved.

The next section will offer a summary of the perspectives developed and how they will interact with the remaining chapters.

1.5.3 Theoretical framework

As the functions of navies' approaches form the basis for evaluating what the BN has done historically and within the timeframe of this thesis, they permeate the next two chapters. This topic will be particularly prominent in Chapter 3, partially in the 'structural perspective' and throughout the 'formal expressions' sections (3.1 and 3.2, respectively), the latter in the assessment of the 'naval documents' (3.2.1) – policies, strategies and doctrines – and of the 'naval force' (3.2.2) – force structure, missions and activities. As noted, this thesis adopts a novel approach to the existing, well-known triangle.

At the same time, Haynes and Swartz contribute by providing a chronological-thematic approach based on the very rich case of U.S. Navy and the correspondent insights regarding significant changes in maritime strategy which can provide elements for us to search for changes of similar nature in the BN's case.

The first perspective – history, practice and thought – will directly frame the next two chapters. In Chapter 2, history will be the main focus, especially in the 'historic footprint' section (2.1). Gaining an understanding of Brazil's and its navy's past is paramount to understanding the tendencies of its naval strategic thinking within the timeframe of this thesis. In Chapter 3, the 'naval documents' section (3.2.1) will present the practice and thought aspects of the BN, while the 'naval force' section (3.2.2) will show the practice aspect alone, and the 'naval publication' section (3.2.3) will consider the thought aspect alone. Hattendorf's (2013) important elements (history, practice and thought), will certainly shape the responses to the research question in Chapter 4 (discussion chapter) and in the conclusion of the thesis. Regarding the remaining perspectives, each will connect to the empiricism of the next two chapters in its own way.

The second perspective, the linkage between naval strategy, maritime strategy and grand strategy, will help us to assess the relationship between the main documents at the national level, in the 'structural perspective' section, [and between] including grand strategy, maritime strategy and policy, and the navy level, in the 'formal expressions' section, with regards to naval strategy.

The third perspective, including the narrow aspect of maritime strategy more strictly related to the military and diplomatic roles of the functions of navies, and the broad aspect encompassing the constabulary role and beyond, will be covered using a similar approach to Booth's (2014) and Grove's (1990) trinity, which will permeate the next two chapters, as noted.

The fourth perspective – declaratory strategy, operational strategy and strategy of means as components of overall maritime strategy – will be explored in part of Chapter 2. Strategy of means will mainly be addressed in the 'quest for autonomy' section (2.3), and Chapter 3, with declaratory strategy being discussed in the 'road to defence' section (3.1.3), and operational strategy mainly in the 'naval documents' section (3.2.1).

The fifth perspective – maritime security as an essential concept related to maritime strategy – will be elaborated on in Chapter 2, relating the maritime security dimensions to the Blue Amazon branches. In Chapter 3, it will relate mainly to the 'naval documents' and 'naval force' sections. The 'naval force' section will particularly mention the newly created naval organisation in the BN – Maritime Security Integrated Centre (*Centro Integrado de Segurança*

Marítima, CISMAR, in Portuguese) – showing how the BN has been dealing with it more recently. Meanwhile, in Chapter 4, final references to maritime security and the Brazilian case will be made.

Although there is no accuracy in that division, Figure 1.5 tries to give a notion of the prominence of each perspective discussed above throughout the parts of the thesis.

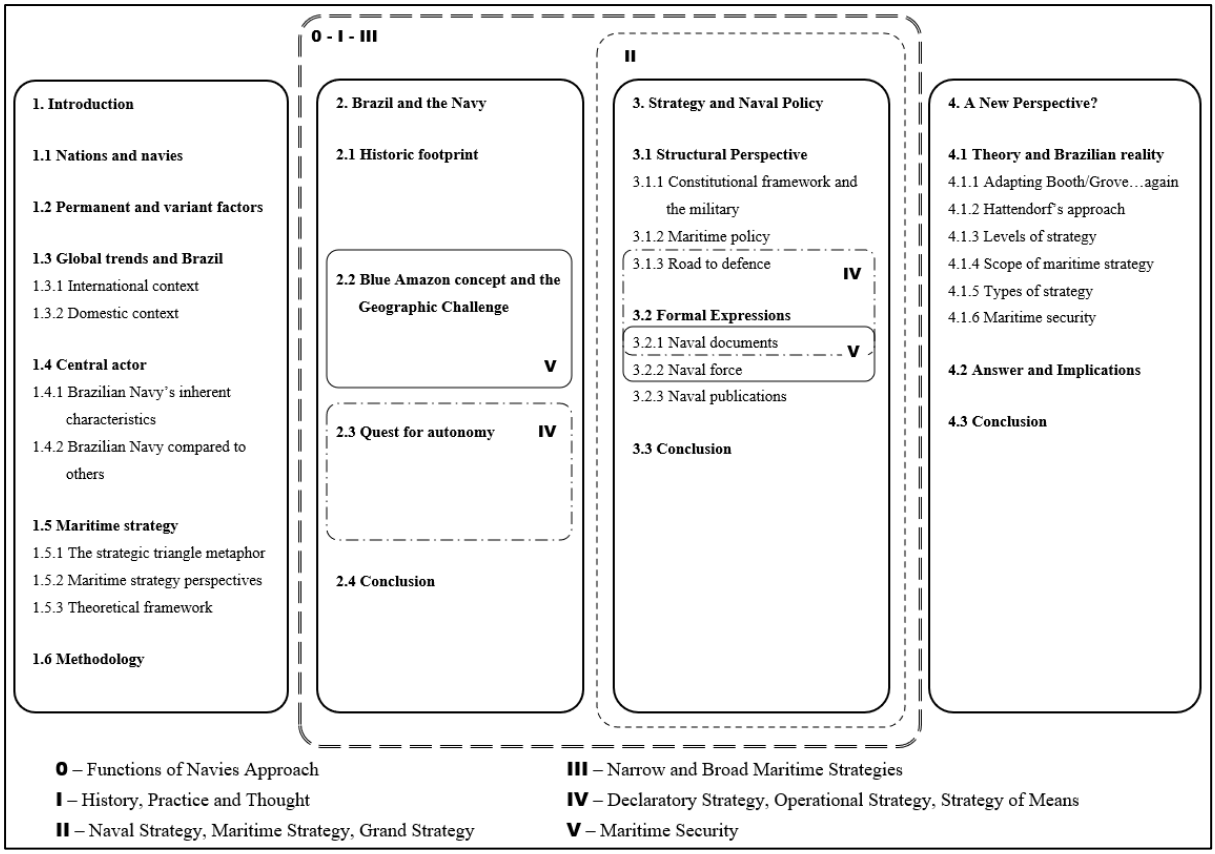


Figure 1.5 – Functions of Navies Approach and Maritime Strategy Perspectives over the Thesis Layout. Created by the author

Over the previous sections, the literature review and the theoretical framework were developed, making it possible to visualise the possible gaps to be filled and concepts to be revisited, and to rearrange the concepts related to maritime strategy in a way that their perspectives can allow the discussion of the evidence presented in the next two chapters. Before this, though, it is important to provide more details on the methodology for this thesis, which will be the purpose of the next section.

1.6 Methodology

Firstly, it is important to understand my background as the author of this thesis. Being a Brazilian navy officer with experience in operational and strategic planning has influenced not only the main motivation for this thesis, but also its research path. It has defined, to a great extent, my hermeneutic horizon.

The method used in this thesis is a case study of the Brazilian context. The phenomenon investigated is 'naval strategic thinking', with 'Brazilian naval strategic thinking' as the research object. All case studies imply that the phenomenon to be examined is immersed in a context, where the boundaries between them are not usually clear (Yin, 2010, p. 39). In practice, the construct of naval strategic thinking is employed as a way to encompass the variable borders of the maritime strategy concept, as noted and as will be seen, so as to capture (or to not miss) important elements for understanding its characterisation, as well as drawing on complementary approaches involving maritime strategy, maritime security and other associated lenses.

On the one hand, if naval strategic thinking encompasses more than maritime strategy, it allows the research to gather a broader set of data and carry out a deeper analysis. On the other hand, it enhances our ability to address relevant aspects and data related to the context, knowing that, in the dichotomy phenomenon-context of case studies, the more the context is addressed, with its evidence, implications and findings, the more this research may apply to other contexts (Yin, 2010, p. 36). This demonstrates the value-added contribution of the thesis.

The next topics will describe the main elements of the methodology that will support this thesis and assure its contribution to knowledge.

Research Question and Timeframe

As indicated, this thesis aims to respond to the following research question: How has Brazilian naval strategic thinking been characterised since the mid-1980s until the end of President Temer's administration in 2018? This question is especially relevant considering that international and domestic contextual changes have had a significant influence on the roles of the Brazilian Navy, as mentioned. In the former case, the end of the Cold War (1989-91), the US Brazil relations during this period, and the debut of the new Law of the Sea, which came into force in 1994. In the latter, the conspicuous government change in 1985 was followed by the creation of the Ministry of Defence in 1999.

As for the timeframe considered, it is useful to characterise it as having two halves. The first relates to the period before the MoD creation, which spanned from president Sarney (15 March 1985 – 15 March 1990), to Collor (15 March 1990 – 29 December 1992), Itamar (29 December 1992 – 1 January 1995) and Cardoso (first mandate: 1 January 1995 – 1 January 1999), who created the new Ministry at the beginning of his second mandate. The second half, after 1999, begins with President Cardoso's second mandate (1 January 1999 – 1 January 2003), continues with Lula's and Dilma's two mandates (respectively: 1 January 2003 – 1 January 2011; 1 January 2011 – 31 August 2016), and ends with Temer's mandate (31 August 2016 – 1 January 2019),[30] after Dilma's impeachment in 2016.

One reason why this thesis considers the creation of the MoD to be a watershed moment in the timeframe is that it led to the publication of significant declaratory documents at a national defence level. The timeframe's second half encompasses the three first national strategies of defence, published in 2008, 2012, and 2016 respectively, and the two first Brazilian Defence White Papers, in 2012 and 2016, as will be addressed. It is worth noting that

[30] Michel Temer then handed over the presidency to Jair Bolsonaro, the current President, in 2019.

these documents have added more elements that might have helped to consolidate, under the lenses of grand strategy, the articulation of the political and strategic levels on defence, with implications for naval strategic thinking. This certainly started developing a greater sense of ends-ways-and-means relating to maritime and naval strategy in the lower levels.

With regards to the timeframe's first half, considering the new era after the end of the Cold War (1989-1991), the domestic political transition from the military to civilian governments (1985) perhaps shows a particular significance. This may have had a meaningful influence on decisions made concerning naval policies and naval strategic thinking as a whole, which remains to be assessed. This timeframe does not prevent useful assessments for the coming future. In fact, this research choice reveals a concern in mapping any tendency throughout the timeframe that might contribute to this assessment.

Research Object

As 'Brazilian naval strategic thinking' is the particular case study and research object of this thesis, two choices related to this study are worth noting. The first is the use of the term 'naval' as opposed to 'maritime'. The author of this thesis is aware of this dichotomy, addressed for example by Sir Julian Corbett (1854-1922), who clarified, as already mentioned, that 'naval' is related to what only navies do, while 'maritime' is a feature common to any strategy where navies are predominant in acting in conjunction with other actors, usually armies, in order to produce any military and ultimately political effects on land. Geoffrey Till (2018) addresses this topic when he defines 'seapower', the very object of his seminal work, *Seapower, a guide for the twenty-first century*, given what he calls the 'semantic awkwardness' of matters related to the sea (2018, p. 24). He points out that 'naval' tends to be more specific, relating to the 'navy', while 'maritime' usually presents further meanings:

> [It] is sometimes taken to concern only navies, sometimes navies operating in conjunction with the ground and air forces, sometimes navies in the broader context of all activities relating to the commercial, non-military use [of] the sea, and sometimes inevitably the word maritime covers all three possibilities (2018, p. 24).

In Brazil's native language, Portuguese, the cited dichotomy is similar, with the former being a subset of the latter, and the words being quite like their English counterparts. '*Naval'* in Portuguese relates to 'naval' in English (with a distinct pronunciation), while '*marítimo'* in Portuguese relates to 'maritime' in English. Nevertheless, in Brazil's case, the term 'naval' is attached to everything linked to its navy, either in peace or wartime, while 'maritime' encompasses the naval and any other non-military entities related to the use of the sea, as will be discussed when addressing Brazilian maritime policies in Chapter 3.

One contributing factor to the Brazilian use of the term 'naval' versus 'maritime' relates to its naval history, with less intense and frequent naval warfare cases as compared to other maritime powers. This combines with the resulting peacetime activities being of high importance to its navy, as Brazil does not have a coast guard. Thus, the navy is responsible for the constabulary role, among other tasks, in addition to its continuous preparedness for defence. This will be expanded on in the coming chapters.

Thus, the term ‘maritime’ in the Brazilian case tends not to express the above first and second meanings indicated by Till (neither ‘only navies’ nor ‘navies in conjunction with ground and air forces’), but rather the third meaning (in the broader context of all activities relating to the commercial, non-military use the sea). Thus, this author has chosen the term ‘naval’ to qualify the expression ‘strategic thinking’, given the centrality of the Brazilian Navy as the object of this study, despite the non-military (and non-naval) nature of the many functions it carries out.

The second choice is the use of the expression ‘strategic thinking’ as opposed to ‘strategy’ or ‘policy’. This choice addresses the peculiarities of Brazil’s multifunctional navy and, in a broader sense, acts to encompass not only naval policy and strategy by themselves, explicitly or not, and their results – like organisation and force structure – but also complementary aspects relevant to them, as signalled at the beginning of this section. These aspects include thoughts expressed through civilian or naval works within the chosen timeframe. They also include, for instance, intended but not fully executed procurement programmes, normally left incomplete due to financial and technological constraints. In a sense, this approach admits that the term ‘thinking’ denotes not only ideas followed by concrete actions, but also formulated ideas with the will to be acted upon, although these goals are not always achieved. These become latent ideas, like the continuous effort to acquire and maintain the naval capability of aircraft carriers, or like the roughly 40-year-long nuclear-powered submarine idea, which will probably start to become a reality over the next few years. This approach has a stronger meaning in cases of regional navies such as Brazil’s, which have historically had frequent programmes for naval construction and acquisitions, but have been short of sufficient resources to transform them into reality; indistinct from any navy, to be fair.

This choice also expresses the Brazilian diffuse reality in the sense that its first open document related to defence strategy was only published in the current century, in 2008, in spite of the creation of the Ministry of Defence nine years prior. This enhanced the need for the interpretation of Brazil’s naval strategic thinking within the timeframe – rather than reading it somewhere – through as many elements regarding naval policy and strategy as possible, sometimes neither formally existent nor available. What this study ultimately considers to be the meaning of ‘naval strategic thinking’ is the real-life decisions and clear intentions of decision-makers to produce some sort of concrete force structure combined with an officially designed set of activities and missions with relevant strategic meaning, in the sense of having the intention to exert some sort of influence.

Objectives

In order to achieve the aim of understanding how Brazilian maritime strategy, in a comprehensive way, has unfolded from the last moments of the Cold War up to the present, the following five general objectives, as initially mentioned at the beginning of the Introduction, are set out here as interconnected stages.

The first objective – following the history part of Hattendorf’s (2013) three-fold approach – will be to address the historical background, analysing the relationship between Brazil as a nation and its navy through three topics. Firstly, the thesis will analyse the BN’s

engagement with the main historical moments of the country (section 2.1), before investigating two consequential topics: the Blue Amazon concept within Brazil's geographic challenge (section 2.2) and Brazil's quest for autonomy (section 2.3). The purpose of this first set of analysis, which engages with events prior to the timeframe of this thesis, is to identify the overall risk-opportunity perceptions of the navy institution, as noted and constructed over time. This has arguably influenced many of the documents and decisions analysed in the subsequent stages, either at the national and defence level or at the naval level.

The second objective will be to address primary sources – official documents – at the national and defence higher levels, beginning with the Constitution (section 3.1.1) and maritime policies (section 3.1.2) from the first half of the timeframe on, and continuing with the new defence documents (section 3.1.3) mostly from the second half of the timeframe. The purpose of this will be to reveal how a structural perspective can influence the documents and decisions at the naval level.

The third objective – following the practice-thought part of Hattendorf's (2013) approach – will be to consider the evidence relating to naval documents, forces and publications, supposedly under the structural influence of a higher level, and forming the perspective needed to analyse the main elements of a Brazilian maritime strategy. As signalled, the naval documents (section 3.2.1) – 'thought' and 'practice' approaches – will be composed of policies, strategies and doctrines. The naval force (section 3.2.2) – 'practice' approach – will be organised into force structure (fleet, patrol, constabulary, survey, assistance, marines and naval aviation, in addition to specific naval organisations relevant to some core roles), missions and activities. Finally, naval publications (section 3.2.3) – the 'thought' approach – will be examined with regards to the main thoughts of two naval experts – Admirals Flores and Vidigal – as well as the Brazilian Maritime Journal, which will aid in evaluating at least part of Brazilian naval strategic thinking. Analysing these first objectives, especially the last two, will provide elements of ends, ways, means and risks, inherent to any kind of maritime strategy diagnosed.

As mentioned in the introduction, the fourth but still essential objective will be to consider the results of the elite interviews conducted with five current and former top leaders of the navy, who worked within the timeframe so that this decision-making evidence can help elucidate aspects of Brazil's maritime strategy.[31]

The fifth objective will be to discuss and relate the findings to the wider literature review and theoretical framework, in a way that will allow the study to adequately respond to the research question. Following these five stages will provide the necessary elements to achieve the aim of the thesis.

Relevance

It has been already highlighted in the literature that navies have more connections among themselves than other armed forces have among them. Suffice to say, the maritime

[31] Top leaders interviewed in person by the author in Rio de Janeiro: Admiral Leal Ferreira, March 21, 2019; Admiral Mauro Cesar, March 26, 2019; Admiral Moura Neto, March 27, 2019; Admiral Guimarães Carvalho, March 29, 2019; and Admiral Ilques, April 1, 2019. Admiral (Marine) Monteiro, General-Commander of the Marine Corps from 2006 to 2010, was also interviewed in person by the author in Rio de Janeiro on April 1, 2019.

domain has no physical boundaries. Thus, interactions, from conflicts, passing through all sorts of crises, to more frequent peacetime activities, are a rather common feature of their nature. When it comes to the maritime space of the South Atlantic, it is indispensable to address Brazil, given it has the largest coastline in the region, measuring 7,491 km (Central Intelligence Agency, 2019; Nag, 2018; Penha, 2011, p. 92). Hence, understanding the progression of Brazil's naval/maritime strategic thinking over roughly the last four decades and its domestic, regional, and sometimes global reflections may provide important indications for future trends as a relevant state actor in this space. This would be true both for when Brazil acts independently or through partnerships and alliances.

In this sense, this thesis presents the potential to leverage the wider debate about Brazil's grand strategy and the navy's role within it. This thesis also fosters and instigates the discussion about Brazil's naval strategic thinking, both inside and outside the navy, in the form of strategic concepts and operational employment, both within the given timeframe and into the future, thus reinforcing Brazil's naval and maritime identities. This analytical review of the Brazilian case contributes to the broad field of research into maritime strategy.

Novelty

Debates over competition between major powers have been commonplace throughout history. While great attention has been paid towards tensions, crises and conflicts involving them, including in the maritime domain, there have also been concerns over how these structural changes in the global order have influenced maritime strategies and policies. Examples in this thesis include UNCLOS and the end of the Cold War. Nevertheless, there are other realities to be explored when trying to understand how this kind of context disruption, combined with domestic changes, might have impacted a country as central to its region as Brazil. The maritime area in which Brazil exists – the South Atlantic – is not as strategically intense as the Indo-Pacific, the Mediterranean, or the Northern seas, but rather is essential to many actors, not only inside but also outside the region. Particularly, when the focus is not restricted to war, it also considers activities – usually related to maritime security – with the increasing demand for efforts in terms of time, actions and resources.

Being attentive to the basis of the functions of navies as a whole – as indicated in the theoretical framework (section 1.5) – will help us to understand how maritime security and maritime strategy might have been intertwined, to some degree, in a case like Brazil's, with its multipurpose navy. Such diversity goes beyond Booth's (2014) triangle. This extrapolation of roles, besides peacekeeping operations and law enforcement in maritime and riverine spaces, includes social and health care in assisting riverine populations – like in the Amazon and Paraguay river basins. It also includes support to the scientific community on the Antarctic continent and in jurisdictional waters along the coast. The thesis will thus also expose elements of maritime security and maritime strategy uniquely affecting, from a Brazilian perspective, Brazil's distinctive naval strategic thinking.

Thesis Layout

As already indicated, the next two chapters will present the main evidence. Chapter 2 – Brazil and the navy – will address the Historic Footprint of the BN (section 2.1), the Blue Amazon concept and the Geographic Challenge (section 2.2) and Brazil's quest for autonomy under the BN's perspective (section 2.3). Chapter 3 – Strategy and Naval Policy – will focus on Structural Perspectives (section 3.1) and Formal Expressions (section 3.2). The former will address the Constitutional Framework and the Military (section 3.1.1), Maritime Policy from the Brazilian Perspective (section 3.1.2), the Road to Defence, which means its search for consolidation (section 3.1.3). The latter will examine Naval Documents (policies, strategies and doctrines) (section 3.2.1), Naval Force (Force Structure, Missions and Activities) (section 3.2.2), and Naval Publications (Admirals Flores and Vidigal, and Brazilian Maritime Journal) (section 3.2.3). The following – Chapter 4, A New Perspective? – will be the main chapter for discussion and conclusions of the thesis.

2 Brazil and the Navy

In order to achieve the aim of understanding Brazilian maritime strategy in a comprehensive way, the first three research objectives will be discussed in this and the next chapter. As already outlined, these chapters will analyse elements of risk and opportunity, as well as the ends, ways and means inherent to any strategic analysis.

The second and third objectives, discussed in Chapter 3, will focus, respectively, on documents of importance at the national and defence levels (Structural Perspective) and at the naval level (Formal Expressions). These objectives, with their target objects indicated by the sequence national-defence-naval, will reveal more about the last part of the strategic chain: ends, ways and means.

The first objective, centred on the current chapter, will address relevant aspects of the BN's engagements with the nation. Firstly, it will analyse key historical moments, before a discussion of strategic communication through the concept of the Blue Amazon, which brings into relief the geographic challenges faced by Brazil. Finally, the chapter will explore the BN's search for autonomy, both in terms of materiel and thought, touching on aspects of the strategy of means.

These engagements – especially the first two (sections 2.1 and 2.2) – will provide the basis for understanding the cumulative perceptions that, initially, nurtured mainly the first part of the strategic chain, namely the elements of risk associated with opportunities, which then influenced the formulation of the various ends. Subsequently, the groundwork will be laid for understanding the ways and means sought in Brazil's case to achieve these ends. The quest for autonomy section (2.3) will offer a first perspective on the part of means, which will be deepened in the naval force section (3.2.2). At the end of this chapter, a comparison of the evidence suggested above through the lenses of the functions of navies approach and the maritime strategy perspectives will also help us to understand how those engagements have contributed to Brazilian naval thinking.

2.1 Historic footprint

As Colin Gray (2008, p.235) once stated, the past is our best guide to the future. Therefore, following Hattendorf's suggestion, within the first perspective of maritime strategy, it is important to address the historical background of the Brazilian case and, in doing so, to identify the most relevant elements of Brazilian naval history. These elements form part of naval culture, which contributes to the basis of Brazil's contemporary position during the timeframe addressed, concerning what we could refer to as the characterisation of its naval strategic thinking.

This contemporary position should be examined not only materialistically – mainly through the formal expressions of maritime strategy discussed in section 3.2, including the analysis of naval documents and naval forces – but also perceptually. The combination of both perspectives is crucial in order to cover the defence and security dimensions. While the importance of a materialistic perspective is evident, the perceptual one arises in its sound

linkage with threats, risks and opportunities, which may not always materialise, but, regardless of outcomes, are usually seriously considered by different countries.

Additionally, since institutions like armed forces normally harness a strong sense of tradition, it is expected that facts from the nation's past, such as crises and wars, are included in traditional narratives regarding vital interests, such as sovereignty. The construction of perceptions based on these facts contributes to strategic thinking and so influences strategic decision-making. In that sense, this thesis will stay as close as possible to the naval policy/strategy aspects of those days, in order to focus on the relevant elements from the past that echo in today's understanding of Brazilian maritime strategy in a broader sense.

Monarchy, Republic and naval strategic thinking

Brazil was a monarchy from 7 September 1822 until 15 November 1889, when a set of factors culminated in local power groups, including the army, overthrowing the royalty and proclaiming the country a republic. This formation has remained to the present day. Under this political framework, in the mid-1980s, when describing and analysing Brazilian naval history, Admiral Vidigal (1928-2009) categorised what he referred to as Brazilian naval strategic thinking into three phases.

Vidigal referred to the first phase, from independence in 1822 to 1893,[32] as the phase of 'Maritime Awareness' (*Maritimidade*, in Portuguese) (1985, pp. 108–113). This included and was characterised by the recognised importance of the Imperial Navy to crucial moments of the young nation, as a means of keeping it united and defending its most valuable geopolitical interests at the time. This was the case during the War of Independence, the subsequent Cisplatine War (1825-1828), the Platine War (1851-1852),[33] and during the tensions in the Southern Cone, which culminated with the War of the Triple Alliance (1864-1870) (1985, pp. 108–109).

The second phase, from 1893 to 1977, when the military agreement between Brazil and the United States was cancelled, as mentioned in the previous chapter, was referred to as the phase of 'U.S. Dependence' or 'Decline' (Vidigal, 1985, p. 106). The reason for this, in his view, was that there was a loss of maritime awareness and an excess of reliance on American materials, doctrines and strategic thinking, especially after the Second World War (1985, p. 118).

Finally, the third phase, from 1977 to the then present day, around 1985 (1985, p. 106), was called the phase of 'Autonomy', where Vidigal saw, despite some persisting dependence, signs of the Navy's search to find its own modes of strategic thinking (1985, p. 121).

In 2002, Vidigal reviewed his former classifications, maintaining some points and adjusting others. For instance, he reconsidered the phase of *Maritimidade* (Maritime Awareness), now setting it at 1910, instead of the previous stipulation of 1893 (2002, pp. 3–4). He justified this by seeing the fleet of 1910, which included two recently procured battleships

[32] 1893 was the year of the Brazilian 'Naval Revolt'[32] (*Revolta da Armada*, in Portuguese, 1893-1894) (Vidigal, 1985, p. 106). Further details will be offered in the 'Republic' section.

[33] Also known in Brazil as the 'War against Oribe and Rosas', two generals from the insurgent side of, respectively, Uruguay and Argentina.

from Britain, the *Minas Gerais* and *São Paulo*, as more representative of the 'maritime awareness' phase than the 'U.S. dependence' phase (2002, pp. 3–4).

At the same time, Vidigal contended that the third phase, rather than just being referred to as the 'Autonomy' phase, could be considered as the 'Autonomy and Military Awareness' phase, since he claimed that:

> the modern and democratic Brazil [after 21 years of military governments, from 1964 to 1985] has today a military power aware of its constitutional assignments, of its subordination to the civilian power, and which is proud of its role in the defence of the homeland and in the maintenance of law and order as determined by the constituted powers of the country. (2002, p. 4)

The importance of Vidigal's framework resides in offering parameters for classifying naval strategic thinking over Brazil's history, and, in doing so, permitting a further comparison of tendencies after the analysis of the research object over this thesis's timeframe (1985-2018). It remains to be seen to what extent the evidence available will converge with Vidigal's conclusions on the third phase, ultimately analysed in 2002, and, at the same time, whether this conclusion has been maintained up to the present day.

Keeping Vidigal's framework in mind, both the monarchy and republic periods that Brazil has experienced, can help to frame the conflict and security context in its almost 200 years as an independent country. For this purpose, this thesis will consider the period of the monarchy in the context of the main events in which the BN took part, including the War of Independence, the Cisplatine War, the Platine War and the apex of this period with the War of the Triple Alliance. The following section on the Republic will include the two World Wars and the Lobster War (1961-1963), both situated within the overarching structure of the Cold War.

Monarchy

The War of Independence (1822-1824)

As a large new-born and sparsely populated country, Brazil's main challenge was to avoid its likely disintegration, due to its vast size and the resistance of Portugal and its loyalists in parts of Brazil to independence, which eventually led to the War of Independence (Vidigal, 1985, p. 1). Brazil was a series of coastal communities, including (as known today) Belém, São Luís, Recife, Salvador, Rio de Janeiro, São Paulo, and Montevideo (a city of Cisplatina Province), then part of Brazil (Vidigal, 1985, p. 1; see also Figure 2.1). The main connection was by sea, firstly between Brazil and Portugal, and then between the above-mentioned communities.

As Vidigal summarises: 'Brazil was an "economic-cultural archipelago", under the risk of fragmentation into a group of small nations, as had happened with Spanish America' (1985, p. 1). The unambiguous solution was to form a fleet to tackle this threat. The first fleet was formed with Portuguese ships found in Rio de Janeiro port, despite their precarious condition, and with the acquisition of merchant ships, via popular subscription (1985, p. 2). The *Arsenal*

da Corte (Shipyard of the Court), in Rio de Janeiro, worked in the recovery of many of these Portuguese ships (1985, pp. 2–3).

Figure 2.1 – Map of Brazil published in 1822 – British source not considering Cisplatine Province as Brazil's territory. Adapted from Carey and Lea (1822)

Regarding personnel, the Portuguese Navy before independence firmly restricted Brazilian natives from becoming sailors and enrolling in the naval academy, with rare exceptions (Vidigal, 1985, p. 3). While most Portuguese officers had adhered to the Brazilian cause, they were often unreliable, and there was a serious shortage of sailors (Vidigal, 1985, p. 3). It was therefore necessary to hire hundreds of foreign sailors and many officers, mostly from Britain (Vidigal, 1985, p. 3). The most well-known would be Admiral Thomas Cochrane, originally from the Royal Navy. Cochrane commanded the Chilean Navy in Chile's War of Independence, from November 1818 to November 1822 (Cubitt, 1974), and was then invited to command the Imperial Brazilian Navy (IBN) from March 1823 to 1825 (Maia, 1965, pp.61–64, 86–87). The Empire's financial condition impeded the acquisition of English ships, and the shortage of personnel led to the acceptance of Native Indians, and even slaves, to man the ships (Vidigal, 1985, p. 3).

The formation of the first Brazilian Fleet, as Vidigal contends, was not the result of deep planning or formulated strategic concepts, but was rather based on the need to expel the

Portuguese and assure national unity (1985, p. 4). More specifically, the tasks then conducted by the newly formed Imperial Brazilian Navy were the following:

> Establish a naval blockade of the regions yet under the Portuguese domain, in order to hamper their communication with other parts of Brazil and with Portugal; support the national faction, […] with troops and, when necessary, with naval gunfire support; and destroy or neutralize the Portuguese naval forces yet in Brazil. (Vidigal, 1985, p. 4)

To sum up, the most important trait of this initial moment was the imperial government's recognition of the need for a naval force capable of dealing with the challenges of retaining the unity of the country, in spite of its long coastline. Despite the initial materiel and personnel difficulties, these first three years were crucial in the formation of the Navy and in developing an awareness of its importance, thus laying the bases for the development of Brazilian naval strategic thinking.

The Cisplatine War (1825-1828)

The Cisplatine War (1825-1828) is one of the first chapters in the rivalry between the new Southern Cone countries, in this case Brazil and Argentina. Simultaneously, it was one of the BN's last conflicts before the great technological transformations in warships from the 1850s onwards, including steam, steel, armoury, artillery, propellers, and propulsion systems (Vidigal, 1985). The maritime scenario of this war on the shallow waters of the La Plata river mouth was, to some degree, the prelude for the riverine theatre challenge that Brazil would face some 40 years later in the War of the Triple Alliance.

The Cisplatine Province – today's equivalent of Uruguay – was annexed to Brazil by the Portuguese Empire in 1821, and remained so following Brazil's independence in 1822 (Garcia, 2012, p. 73). However, Argentina, independent since 1816, had the ambition to form the United Provinces of the Río de la Plata, comprising most of the territory of the former Spanish Viceroyalty of Río de la Plata (Randig, 2017; see also Figure 2.2). The strategic asset in dispute was clearly the access permitted by the La Plata river to the subcontinental interior lands. In Brazil's case, sharing that river meant having access to the western part of its territory, which neighboured Paraguay (Siqueira, 2018; see also Figure 2.3). To Argentina, it meant keeping the whole domain of this access.

When, in 1825, delegates from the Cisplatina Province declared independence from Brazil and reaffirmed their allegiance to the United Provinces of the Río de la Plata, Brazil declared war on the latter (Vidigal, 1985, pp. 9–13). The Empire of Brazil immediately imposed a blockade on the ports and coast of the United Provinces, while Argentina persistently defied this blockade and released privateers to attack Brazil's seaborne trade (Vidigal, 1985, pp. 9–13; see also Figure 2.4).

The Brazilian naval force was superior to Argentina's, but the bigger draught of its ships made them unsuitable to freely operate in the Río de la Plata estuary, which consisted mostly of shallow waters. Thus, the Brazilian naval force did not have the conditions to decisively attack the few Argentinean ships in the estuary, which were better equipped to operate in that area (Maia, 1965, pp. 89–117).

The main part of the Brazilian fleet was tasked with establishing a naval blockade to interrupt maritime communications, impede any enemy naval support to land operations, and disrupt the attempts of any corsairs from operating on the high seas against Brazilian seaborne trade (Vidigal, 1985, p. 10). Another part of the naval force, called the Uruguay flotilla, was committed to impeding enemy communications through the Uruguay and Paraná rivers, tributaries of the La Plata river (Vidigal, 1985, p. 10; see also Figure 2.4).

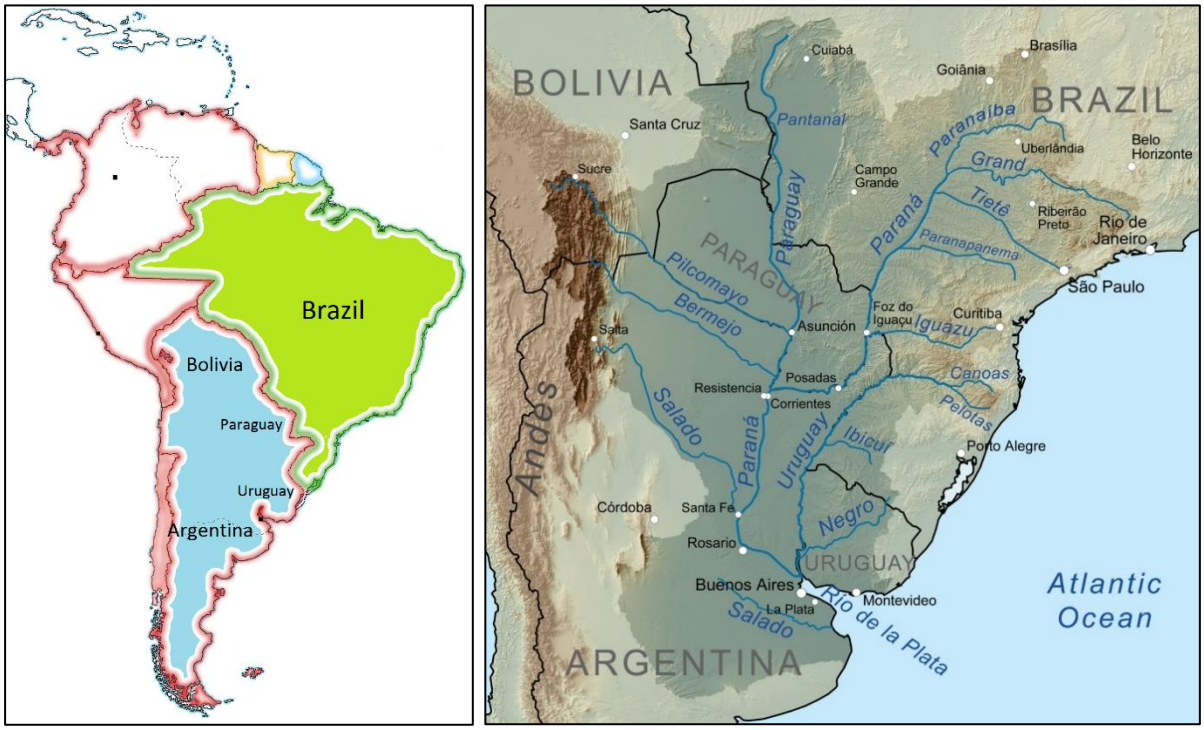


Figure 2.2 – The Argentinean-desired United Provinces of the Río de La Plata (Lecen, 2010)

Figure 2.3 – Main tributaries of the La Plata river (Paraná, Paraguay and Uruguay rivers) – Access to Brazil's interior lands (Kmusser, 2010)

Given the stalemate and the high costs of war for both sides, British mediation was required, and this led to the signing in 1828 of the Treaty of Montevideo. This Treaty recognised the independence of Cisplatina under the name of the Eastern Republic of Uruguay, granted Brazil the territorial sovereignty of the former Eastern Jesuit Missions, and, most importantly, assured the strategic free navigation of Río de la Plata, Brazil's main political objective in the war. At the end of the conflict, Brazil's naval force, still a sailing fleet, was the most powerful in South America (Vidigal, 1985, p. 13).

After the contribution of the Navy to the nation's survival in its first years, the Cisplatine War entangled Brazil's highest interests with its geopolitical concerns over its continental neighbours. It represented another crucial event, highlighting the importance of the Navy in Brazil's initial years as a young nation, and contributing to the emergence of Brazilian naval strategic thinking, and subsequently, to Vidigal's classification of the Maritime Awareness phase.

Figure 2.4 – The Cisplatine War theatre. Adapted from FGV-CPDOC (2019a)

Regency Revolts, the Platine War and the period of the pre-Paraguayan War

The Empire's political situation in the first decades of Brazil's nationhood were conditioned by two main aspects, which affected the destinies of the Imperial Navy (Vidigal, 1985, p. 15). In the economic domain, the lack of industrialisation in Brazil made it dependent on foreign goods from Europe, mainly England and France (Vidigal, 1985, pp. 15–16), thus affecting any strategy of means development. In the political arena, the world supremacy of England had implications for the trafficking of slaves, which, after 1830 – by force of a treaty

signed between Brazil and England in 1826 – had become illegal and had to be policed by the Imperial Navy. This influenced Brazil's naval policy, but with much difficulty and ineffectiveness (Bethell, 1976, p. 69; Vidigal, 1985, pp. 15–16).

In Vidigal's analysis, the strategic orientation of the development of the Imperial naval power would be defined as follows:

> *Necessity to operate* in La Plata river basin and tributaries, against light naval forces, but supported by great calibre gunnery, protected by bunkers, in banks of narrow and sinuous rivers; *necessity to patrol* the Brazilian coast and the main sea lanes of slave traffic, avoiding, by the acting of Brazilian units against the illegal traffic, the British interference; and the *necessity to have* the means for the maintenance of the integrity of the Empire, blocking rebellious regions, transporting troops and supporting their development inland. (1985, pp. 16–17)

Notwithstanding, during the whole Regency Period (1831-1840) until around 1850, there was little modernisation of the Navy (Vidigal, 1985, p. 17). Political instability was one reason, with revolts occurring in Rio de Janeiro and other provinces (Vidigal, 1985, p. 17).[34] Apart from the *Farrapos War* in Rio Grande do Sul (1835-1845), no naval forces opposed each other, and so did not draw much attention from the government. Additionally, the government's efforts to support these revolts contributed to the lasting financial hardship of the Empire (Vidigal, 1985, p.17).

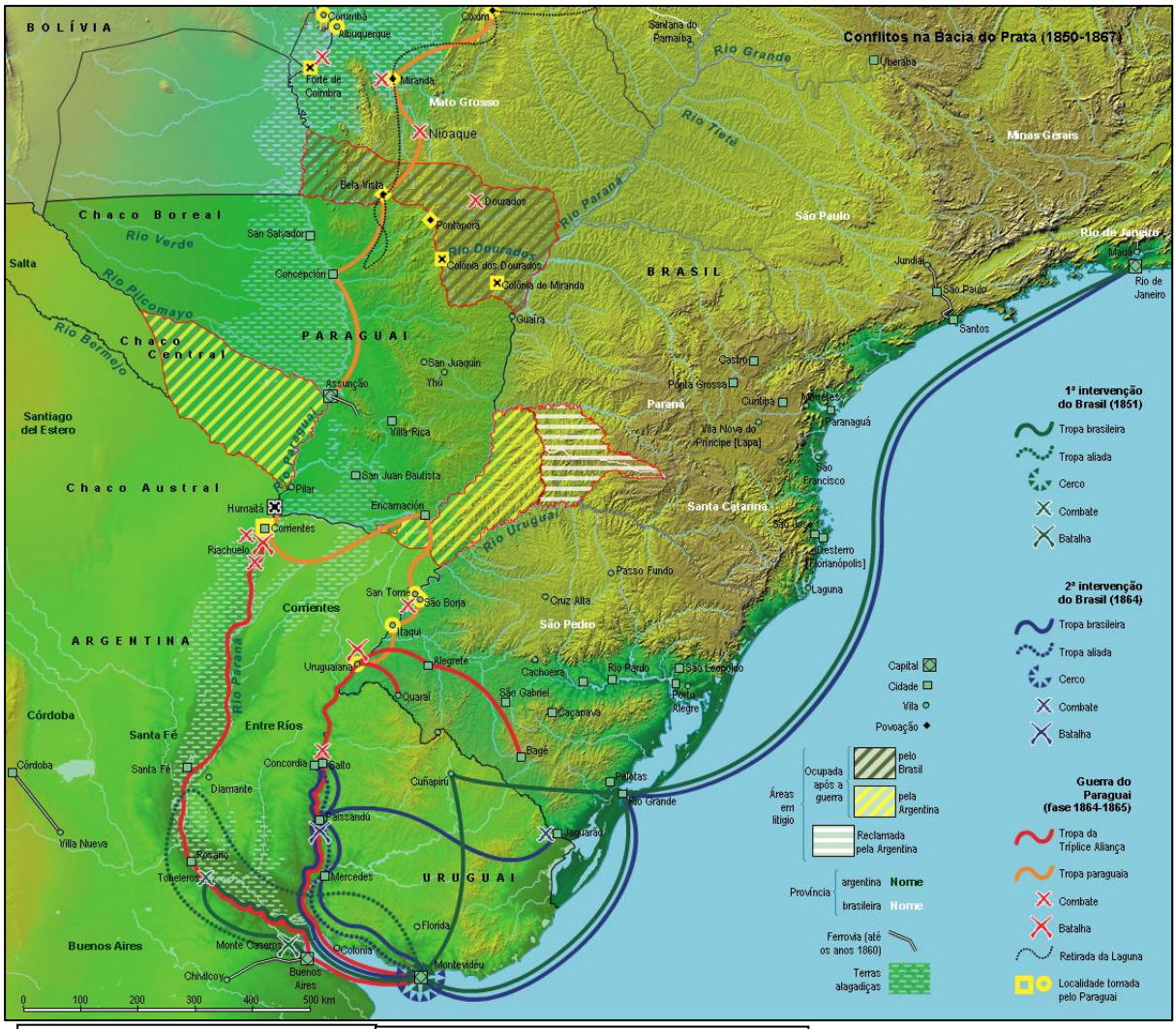
Another reason was the extraordinary technological transformation of naval means, affecting naval strategy as a whole, in the last half of the nineteenth century (Vidigal, 1985, p.18). Combined with the strained budgets available, the velocity of those transformations rendered naval leaders uncertain in their choices, delaying decisions on naval means (Vidigal, 1985, p. 18).

With naval development lagging, the Empire was dragged into another external conflict in 1851-1852, referred to as the Platine War. The conflict was now waged against General Rosas, governor of Buenos Aires Province since 1835, who allied with the Uruguayan General Oribe against the legal government of Uruguay, thus reviving the idea of forming the Viceroyalty of the Río de la Plata (Vidigal, 1985, p. 23). Brazil, in allying itself with Uruguay and the Argentine Provinces of Entre Rios and Corrientes, would assure the freedom of navigation in the Paraná, a tributary of the La Plata river, as essential to the economic accessibility of the Brazilian Province of Mato Grosso (Vidigal, 1985, p .23; see also Figure 2.5).

The important task of the Imperial Navy was to transport the alliance troops from Colonia de Sacramento – in the south of Uruguay – upstream to a point on the Paraná river, near the current city of Santa Fé (Vidigal, 1985, p. 24). The war ended with the Battle of Caseros, in February 1852, and showed the importance of the new steamers for the Imperial Navy (Vidigal, 1985, p. 24). A new cycle of Navy renovation occurred with the severed diplomatic relations between Brazil and Paraguay after 1853 because of the need for freedom

[34] Amongst the revolts, the following are highlighted here in order of occurrence: in Pernambuco, *Setembrada* (September 1831), *Novembrada* (November 1831), and *Abrilada* (April 1832); in Pará, *Cabanagem* (from January 1835 to April 1839); in Bahia, *Sabinada* (November 1837 to March 1838); in Maranhão, *Balaiada* (December 1838 to January 1841); in Rio Grande do Sul, *Farrapos War* (1835-1845) (Vidigal, 1985, p. 17).

of navigation, again, through the La Plata river basin to Mato Grosso Province. This acted for the benefit of Brazil, and to the detriment of Paraguay (Vidigal, 1985, p. 24).



2nd Brazil intervention (1864)
- Brazilian troops
- Allied troops
- Military siege
- Combat
- Battle

Paraguayan War (1864-1865 phase)
- Triple Alliance troops
- Paraguayan troops
- Combat
- Battle
- Laguna evacuation
- Localities taken by Paraguay

Figure 2.5 – Conflicts in the La Plata river basin (1850-1867). Adapted from FGV-CPDOC (2019b)

The episode of the Brazilian diplomatic mission sent to Paraguay in an attempt to restore relations was led by an admiral, accompanied by an expressive naval force. This intimidated rather than reassured the Paraguayan government, resulting in the mission's failure (Vidigal, 1985, pp. 24–25). However, this expedition, at the same time, exposed the

unsuitability of many Brazilian ships for this riverine theatre because of their deep draughts, and served to impel the ongoing efforts to make changes to the Navy (Vidigal, 1985, p. 25).

Attempts were made by the Brazilian government to acquire ships from England, which had fought during the Crimean War (1853-1856), but with no success. This was followed by Brazil failing to place orders with England and France for new vessels (Vidigal, 1985, pp. 25–27). The *Arsenal da Corte*, in Rio de Janeiro, was responsible for completing the ships needed through local construction work (Vidigal, 1985, pp. 25–27). As remembered by Vidigal, the requirements for the designs were obviously influenced by the riverine theatre being played out between Brazil and Paraguay, but also by the later analyses of the American Civil War (1861-1865) (1985, p. 29). Nevertheless, despite the efforts already made, and frequent and clear advice from naval leaders and some politicians, the Imperial Navy was unprepared at the outbreak of the war, with most of their ships inadequate for riverine navigation and without sufficient armour, thus making them incapable of facing the Paraguayan fortresses strategically located in the river banks (Vidigal, 1985, pp .31–32).

While this political instability revived ongoing concerns related to the fragmentation of the country, there were other worries as well. They involved, as mentioned, the Navy's assignments in the South Atlantic, including the constabulary task of fighting illegal slave traffic; the increasing tensions in the riverine theatre in the continent's Southern Cone, encompassing Argentina, Uruguay and Paraguay; and the lack of industrialisation associated with the rapid technological transformations affecting Brazil's ability to handle an adequate naval strategy of means. In the latter regard, these reflections, as will be seen in the rest of the current and the 'Quest for Autonomy' section (2.3), will continue over the twentieth century.

Paradigmatic Conflict: The Paraguayan War – The War of the Triple Alliance (1864-1870)

The mentioned tensions in the Southern Cone led to the War of the Triple Alliance in 1864. The reality of war forced the implementation of an intense naval programme, adding to the continued efforts of the *Arsenal da Corte*, ongoing since 1850 (Vidigal, 1985, p. 34). New ships, either coming from abroad or built in Brazil, were incorporated, even during the war (Vidigal, 1985, pp. 34–43).

For naval access to the theatre of operations, it was necessary to enter the estuary of the La Plata river, between Uruguay on the northern bank and Buenos Aires Province on the south, and then go upstream on the Paraná river to the area near the borders between the Argentine Province of Corrientes and Paraguay, as seen in Figure 2.5.

With regards to logistics, an advanced supporting base was created at a location on the Paraná river called Cerrito island, nearby the confluence of the Paraguay and Paraná rivers, a region already inside the conflict zone (Vidigal, 1985, p. 35). This was an important logistic point, given the long distances between the bases in Rio de Janeiro and the theatre of the conflict (see Figure 2.5).

However, what made this war paradigmatic for Brazil and its navy were the lessons learned from operating in that kind of scenario and the determinant character of one specific episode – the Naval Battle of Riachuelo on 11 June 1865 – located on the Paraná river,

downstream from the confluence with the river Paraguay, and upstream from the base at Cerrito island (Vidigal, 1985, p. 36; see also Figure 2.5). As Vidigal explains, Riachuelo was a clear example of a decisive battle because in that episode, the Paraguayan naval power was almost completely eliminated (1985, p. 36). Although it was not strategically decisive because it did not lead directly to victory in the war, it was a crucial initial step, which permitted troops and the fleet to continue the war upstream, inside Paraguayan territory (Vidigal, 1985, p. 36). At the same time, two important implications were the maintenance of the blockade the fleet was already imposing on Paraguay, and the control of the main routes of penetration into the conflict zone (Vidigal, 1985, p. 36).

The feat of the fleet in Riachuelo, commanded by Brazilian Admiral Barroso, was remarkable in that it started from an unfavourable initial position, being attacked by heavy artillery from the banks and by Paraguayan ships. However, this position was then reversed by using its bigger ship, the frigate *Amazonas*, to carry out the unexpected tactic of ramming the enemy ships (Vidigal, 1985, p. 36). The anniversary of this battle came to be considered later as the most important date in the formation of the BN, given its decisive role and historical significance (2019e).

The subsequent progress of the allied forces in the conflict zone was dependent on positions gradually gained by the fleet further upstream, with the Paraguayan fortresses along the River Paraguay being the most relevant obstacles (Vidigal, 1985, pp. 36–38). Humaitá, for instance, located upstream from the confluence between the Paraguay and Paraná rivers, inside Paraguayan territory, was considered impregnable (Vidigal, 1985, p. 37; see also Figure 2.5). The victorious taking of this fortress by the allied forces in February of 1868 was of high strategic importance, as it nearly decided the outcome of the war, the capital of Paraguay being occupied in January of 1869 (Vidigal, 1985, p. 39).

Regarding strategy of means, Vidigal writes that, still under war pressure, a naval procurement programme was submitted in April 1868 – The Plan for the Organization of the Imperial Naval Force – which comprised different types of warships, each for a specific naval necessity:

> First category – high-speed ships, for oceanic navigation: 1 armoured frigate; 4 armoured corvettes; and 4 non-armoured corvettes;
> Second category – medium-speed ships, for littoral and great rivers navigation: 6 1st class armoured gunboats and 6 non-armoured gunboats;
> Third category – low-speed ships, for shallow water rivers and port defence: 16 2nd class armoured gunboats; 8 2nd class non-armoured gunboats; 16 paddle wheel riverine transport ships; floating batteries; and
> Fourth category – paddlewheel steamboats and propeller-driven vessels for transporting troops and the latter also for policing the rivers. (Vidigal, 1985, pp. 39–40)

The formation of and justification for this 1868 programme rendered it one of the first well-articulated naval programmes. It resulted from the experience of Brazil's troublesome moments, including the ongoing war, taking into consideration the scenarios in which the Navy had to operate and defend itself: oceanic, littoral, riverine and port based.

Notwithstanding, the programme was never executed, likely due to the huge costs of war and the low number of ships lost (Vidigal, 1985, p. 42). In any case, the Imperial Navy, according to Vidigal, although holding a significant quantitative position on the international

stage after the war, experienced two main problems: a large number of ships suitable only for riverine operations or coastal defence; and a significant number of technologically outdated ships, many wooden, and still using a mixed propulsion system – sail and steam – and, amongst the steamers, a large number of paddlewheel vessels (1985, pp. 42–43). In addition to the above, after the war, the country could not afford to implement a plan like that cited in 1868. One aspect highlighted by Vidigal that contributed to the plans remaining unrealised – which echoes today – was the inexistence of a clear naval opponent at the state level after the Paraguayan war (1985, p. 43).

In conclusion, during the monarchy period, the War of the Triple Alliance represented an apex to Brazil and its navy. For Brazil itself, it was one more step towards consolidating its borders according to its geopolitical interests. For the BN – with events like the major baptism of fire of the Naval Battle of Riachuelo – it was one more step towards its consolidation as an institution, after nearly half a century of Brazilian independence.

Additionally, there was also a consolidation of strategic thinking for Brazil through decades of growing tensions and disputes with its neighbours. It went from having no strategic concept in its first survival moments, to assembling any available ships to face the risks posed to the country and prevent its disintegration, to a crescendo of strategic consciousness, even if it could not fully afford the needed naval force. The more robustly idealised procurement programme of 1868, which exposed the awareness of the demands of each of its huge operational spaces – oceanic, littoral, riverine, and port-based – was a clear sign of these deficits. As such, these movements represented the initial development of Brazilian naval strategic thinking that sought to materialise an effective maritime strategy. These movements, with their ups and downs – as in many countries' histories – would continue to unfold in the republican period, now with more distant international events forcing Brazil and its navy to adapt to new challenges, both alone and along with some rising partners, as will be seen.

Republic

The Republican Period, which extended from the end of the nineteenth century onwards, represented many transformations in Brazil, and within its navy. As mentioned, this period will consider the BN taking part in the two World Wars and in the so-called Lobster War (1961-1963), in order to identify influences on Brazil's naval strategic thinking.

Under Vidigal's framework for this research object, Brazil went through its last moments of the 'Maritime Awareness' phase up to around 1910, and advanced through the 'U.S. Dependence' phase, beginning around 1922 and going on until 1977, as mentioned. Notwithstanding this, BN went through very difficult moments beforehand, as will be shown in the next section. This helped Brazil to choose its alignment with the U.S. Navy after World War I, starting superficially in 1918,[35] with some officers working at the Brazilian Naval War College,[36] but only formally established by contract as a Naval Mission in December of 1922 (Caminha, 1985, p. 20).

[35] In fact, there was one American officer, a Commander, contracted to work in the Brazilian Naval War College in 1914, the year of its inauguration (Martins, 1985, p. 214).
[36] It was then called the Naval College of War (its denomination until 1930).

By reaching the late 1970s, this section will be on the verge of the thesis's full timeframe, and will get into the BN's other engagements with the nation in the following sections, namely the Blue Amazon concept within the context of Brazil's geographic challenges, and its search for autonomy. The following sections will also help identify manifestations of Brazil's naval strategic thinking.

Decline: Naval Revolts (1891, 1893); Naval Procurement (1904-1906)

The transition from monarchy to republic was traumatic for the navy. Apart from the impact of the Paraguayan war, the Empire's financial hardships, and the accelerated technological transformations that were difficult to follow, the event of the proclamation of the Republic itself, in 1889, marked a prominent association of the Army with politics, and downplayed the navy as a political actor. The unfolding events involving the first two presidents, who were Army generals – Deodoro da Fonseca (1889-1991), closing the Congress; and Floriano Peixoto (1891-1894), struggling with constitutional rules – generated political instability, ultimately leading to two naval revolts in 1891 and 1893. These were headed by the then Minister of the Navy, Admiral Custódio de Mello (FGV-CPDOC, 2016).

The revolts aggravated even further the navy's situation, in terms of materials and also prestige, leading them to lose political influence within the government. At the turn of the century, the main naval force was comprised of two battleships of 3,200 tons, commissioned in 1898 and 1900, and built in France; one protected cruiser of 3,500 tons, commissioned in 1896, and built in England; and three torpedo cruisers of 1,100 tons, commissioned between 1896 and 1898, and built in Germany. These joined the existent two battleships of 5,100 tons and two cruisers of 4,700 tons (Vidigal, 1985, p. 54).

The economic situation of the country, with an improvement after 1898, helped by the coffee valorisation and the Amazon rubber boom in the international market, and new political attitudes, with Baron of Rio Branco as Brazilian minister of foreign affairs from 1902 to 1912, created more favourable conditions for the navy (Alsina Jr., 2015, p.14; 20). An audacious naval procurement programme, proposed in 1904 with Admiral Júlio de Noronha as minister (1902-1906), and heavily supported by Baron of Rio Branco, reflected the splendour of this period:

> - three battleships of 14,000 tons […];
> - three battlecruisers of 9,500 tons […];
> - six destroyers of 400 tons […];
> - six torpedo-boats of 130 tons; for high seas […];
> - six torpedo-boats of 50 tons; for port area […];
> - one supply ship (coal) […]. (Martins and Cozza, 1997, p. 87; Vidigal, 1985)

The Battle of Tsushima's strong impacts on tactical and strategic concepts at sea, however, influenced the changes made to the 1904 programme by Admiral Alexandrino de Alencar (1906-1910) – Júlio de Noronha's successor. He enhanced more international projection capabilities compared to the more regional models put forward in its previous programme, among others (Vidigal, 1985, pp. 59–60).

This 1906 programme, after modifications, would leave the fleet with, primarily, two dreadnoughts of 19,000 tons – *Minas Gerais* and *São Paulo* – two scouts of 3,100 tons, and ten destroyers of 650 tons, which represented the so-called 'Fleet of 1910'. However, maintenance and logistical problems, which would not be addressed until the 1920s, affected the conduct and durability of this fleet (Martins and Cozza, 1997, pp. 80–86). The *São Paulo* was sent to the United States for modernisation only after WWI, and the *Minas Gerais* only three years later (Martins, 1985, p. 208).

Martins draws attention to the personal character of the significant changes from the 1904 to the 1906 programme, which somehow affected the naval strategic thinking of that moment:

> […] it is noteworthy that this obeys mainly the distinct points of view of the succeeding ministers. There is no reference to debate, study, analysis by an appropriate organ preceding the transformation of the Programmes. [...] Everything depended directly on the ministerial opinion and decision, that is, on an organ that, due to its political qualification, was of random permanence. (1997a, p. 283)

As seen in this section, this transition period between the two phases and in the years preceding WWI highlighted two important aspects. On the one hand, since the tensions with its neighbours in the riverine theatre of the Southern Cone were eased, more distant international events (overseas), such as the Battle of Tsushima, happened to exert more influence on Brazil's naval strategic thinking. Despite the noted personal character of the decision-making process of the 1906 procurement programme, the ambitious adjustments from 1904 to 1906 demonstrated this influence. Such overseas drivers would continue with the next World Wars.

On the other hand, the precarious conditions of the BN began to stand out, which arguably hastened Brazil's approach to the United States after WWI, as noted. Despite some reactions in trying to put in place a significant naval force after 1910, mainly represented by the two dreadnoughts, there were chronic structural issues with maintenance, logistics and a lack of prepared personnel to man the ships. Thus, if the phase started after WWI is denominated as 'U.S. Dependence', this dependence on a rising power appeared to be more than welcome at that moment, given the harsh conditions of the BN, and certainly contributed to the advancement of Brazil's naval strategic thinking.

WWI (1914-1918)

Brazil was initially neutral at the beginning of the war in 1914. The Germans' hostile attitude after the Battle of Jutland in 1916 and towards the submarine campaign in 1917, when they submitted every neutral ship to blockade and the danger of being sunk, would soon change this situation (Martins, 1997b, pp. 259–260). Seven Brazilian merchant ships in total were torpedoed near European and African waters between April 1917 and January 1918, leading firstly to the severance of diplomatic relations in April 1917, and, after the fourth sinking, to the declaration of a state of war in October 1917 (Martins, 1997b, pp. 260–263).

Firstly, Brazil, besides supporting allies with foodstuffs and raw materials, conducted coastal patrols, distributing its ships into three zones – North, based in Belém city; Central,

based in the then capital, Rio de Janeiro; and South, based in São Francisco city (Martins, 1997b, p. 262). With the sinking of the latter merchant ships, public opinion started to increase pressure on the government, demanding greater participation in the war (Martins, 1997b, pp. 262–263). In response to the public clamour, Brazil then offered three types of support: a naval division to operate, which the British Admiralty found convenient; a group of naval aviators to be trained by the Royal Air Force (RAF) to share its missions; and a medical mission to be integrated with health services on the French front (Martins, 1997b, p. 263).[37]

The naval division, called *Divisão Naval de Operações de Guerra* (DNOG; Naval Division for War Operations) was formed by two light cruisers (scouts), four destroyers, one tender, and a tug vessel, and was commanded by Brazilian Rear Admiral Pedro Max Fernando Frontin (1867-1939). It would patrol the Triangle of Dakar, Saint Vincent, and Gibraltar, and was incorporated into a British naval force commanded by Admiral Sheppard (Martins, 1997b, pp. 264–267; Schurster et al., 2014). It was formed and materially prepared in January 1918, its staff were trained for about five months, and it departed for crossing the Atlantic in July, arriving in Freetown (Sierra Leone) for repairs and replenishment, before starting the mission in Dakar (Martins, 1997b, pp. 264–267). Many crewmembers were affected by the Spanish flu pandemic of 1918, considerably depleting the Division, leaving 156 fatalities in Dakar (Martins, 1997b, pp. 264–267). Just after arriving in Gibraltar, the armistice was signed on 11 November 1918, thus ending the war. After returning to Brazil, DNOG was dissolved in June 1919 (Martins, 1997b, pp. 264–267).

Apart from the obstacles in existence since the first years of the Republic, the DNOG represented a relevant experience for the BN. Those difficulties continued in the inter-war period, involving material obsolescence, lack of personnel qualifications, poor maintenance and a logistical structure, which led to a gradual loss of the military value of the naval force, with many procurement programmes not being implemented (Vidigal, 1985, p. 71).

This was part of the context for the decision to contract the American Naval Mission in 1922. The main reasons were the remembrance of the fleet of 1910, with the apparent power of two battleships, in spite of a lack of skills and a poor logistical structure for repair and maintenance; the success of the French Mission to the Brazilian Army; and the return of officers who had participated in the U.S. Navy interchange. These officers had followed the modernisation of the two Brazilian battleships in the United States, initiated in the early 1920s (Martins, 1985, pp. 208; 213). In fact, after all the limitations and hardships experienced by the BN during this inter-war period, the American Naval Mission had a huge impact in starting to shape a modern and updated mentality in the BN (Martins, 1985, p. 213).

Despite the relatively brief participation of the BN in WWI, it left a relevant legacy of conflict experience in blue waters in the new century. This was certainly a significant milestone, which had an impact on Brazil's naval strategic thinking, thus influencing the current and next generations, regardless of the well-known structural difficulties. In this regard, the partnership with the United States via the American Naval Mission offered positive perspectives as a means of helping to better organise the navy, which rendered improved

[37] 12 pilot officers from the Navy and one from the Army were sent to the war. Two got injured and the remainder were employed in patrols over the English Channel. With regards to the medical mission, 85 physicians were employed where needed by the French (Martins, 1997b, p. 263).

conditions of development. This approximation allowed Brazil and the BN to face the next challenge in less problematic conditions, to act alongside the Allied Forces, especially the United States, in the South Atlantic in WWII.

WWII (1939-1945)

With the outbreak of the Second World War, the Navy was totally unprepared for the type of threat they would have to face: the unrestrained submarine campaign of the Axis (Vidigal, 1985, p. 86). Moreover, anti-submarine warfare had not been fully considered even by the American Naval Mission teachings or by the Brazilian Naval War College (Vidigal, 1985, p. 86). After many attacks on Brazilian merchant ships along the Brazilian coast from February 1942 onwards, a state of war was recognised by Brazil on 31 August of the same year (Gama and Martins, 1985, p. 268).

In terms of preparation, various administrative, training, acquisition, and material adaptation measures were adopted (Gama and Martins, 1985, p. 275). 'Naval Commands', more varied than in WWI, were established, dividing the regions of the country into the North, based in Belém (including the Amazon river basin); Northeast, in Recife; East, in Salvador; Central, in Rio de Janeiro; South, in Florianópolis; and Mato Grosso Naval Command, in Ladário (Mato Grosso and high-Paraná river basins) (Gama and Martins, 1985, p. 275).

'Local Defences' were also established by the Navy jointly with the Army and Air Force to avoid enemies landing or sabotaging port facilities and other vital points (Gama and Martins, 1985, p. 276). In terms of 'Active Defence', American minesweeping ships were employed nearby main ports; torpedo nets were used; some ships – such as the battleships *Minas Gerais* and *São Paulo*, respectively – were anchored in position in cities like Salvador and Recife; and Marines and Army troops were positioned on the Brazilian oceanic islands (Gama and Martins, 1985, pp. 276–279).

As for materiel concerns, a commission of navy officers was established to train in the United States with the expectation of also receiving some American warships to help compose the Brazilian naval forces (Gama and Martins, 1985, p. 280). In total, eight Sub-Chasers (SC) – which then became Brazilian J-class '*caça-submarinos*'[38] – were delivered between December 1942 and April 1943; eight Patrol Craft (PC) – Brazilian G-class '*caça-submarinos*'[39] – were delivered between September 1942 and November 1943; and eight Destroyer Escorts (DE) – Brazilian B-class '*contratorpedeiros-de-escolta*'[40] – already

[38] These were named: *Javari* (J1), *Jutaí* (J2), *Juruá* (J3), *Juruena* (J4), *Jaguarão* (J5), *Jaguaribe* (J6), *Jacuí* (J7), *Jundiaí* (J8) (Gama and Martins, 1985, p. 282). The main features were: 100 ton displacement; 33.5 m long; wooden hull (the reason why Brazilians called them '*caça-paus*'); speed 15 knots; sonar and anti-submarine attack equipment; guns: fore (1) 76 mm, amidships (2) 20 mm, aft mortars and depth charges launchers (Gama and Martins, 1985, p. 284).

[39] These were named: *Guaporé* (G1), *Gurupi* (G2), *Guaíba* (G3), *Gurupá* (G4), *Guajará* (G5), *Goiana* (G6), *Grajaú* (G7), *Graúna* (G8) (Gama and Martins, 1985, p. 282). The main features were: 280 ton displacement; 57.3 m long; iron hull (the reason why Brazilians called them '*caça-ferros*'); speed 18 knots; radar, sonar and anti-submarine attack equipment; guns: fore (1) 76 mm and rocket launcher, amidships (2) 20 mm, aft 40 mm guns, mortars and depth charges launchers (Gama and Martins, 1985, p. 284)

[40] These were named: *Bertioga* (B1), *Beberibe* (B2), *Bracuí* (B3), *Bauru* (B4), *Baependi* (B5), *Benevente* (B6), *Babitonga* (B7), *Bocaina* (B8) (Gama and Martins, 1985, p.283). The main features were: 1,240 ton displacement; 93 m long; speed 20 knots; radars, sonar and anti-submarine attack equipment; guns: fore and aft (2+1) 76 mm,

operating in Brazilian waters, were handed over to Brazilian crews between August 1944 and May 1945 (Gama and Martins, 1985, pp. 282–283). They were mainly employed to provide escort services for convoys against submarines. Three destroyers built in Brazil – the M-class; based on the American project Cassin class – were also commissioned in November 1943 (Gama and Martins, 1985, pp. 284–285).[41] Adaptations were also made in other Brazilian warships to enable them to conduct anti-submarine warfare (Gama and Martins, 1985, pp. 286–287).

The main operations conducted by the BN were escorting convoys, oceanic patrols, and also merchant ships taking the Brazilian Army troops, known as the Brazilian Expeditionary Force (FEB) (around 25,000 troops divided into five stages) to fight in Italy, between July 1944 and February 1945 (Gama and Martins, 1985, pp. 366–373). As for the Brazilian Merchant Navy, 32 ships in total were sunk and 972 lives were lost (Gama and Martins, 1985, p. 360). The BN lost three ships, which, along with other victims, numbered 486 (Gama and Martins, 1985, pp. 402–415).

As Vidigal (1985) and other have commented, the effects of anti-submarine warfare on strategy, doctrine and mindset, in the context of the Cold War would last for a long time, with some course shifts only starting to occur after the late 1960s, and more significantly in the late 1970s, as the next section will show. WWII represented another valuable layer of experience, which meant an upgrade to Brazil on the international stage and an improvement for the BN along with a closer interaction with the U.S. Navy. It is worth noting that Brazil was the only country in South America to participate in both world wars.

While the focus for the BN had mainly been on anti-submarine warfare, it can be argued that the situation of the navy and the circumstances of a developing country like Brazil at that time would not have allowed more sophisticated roles. Despite this, it can be said that the experienced endurance in the war was valuable to encourage the development of the important warfighting aspects of Brazilian naval strategic thinking. This was the case with the anti-submarine capability, which would be relevant for middle-rank navies, like Brazil's, in their role in the Western bloc during the Cold War dispute.

As happened with WWI, WWII represented a significant milestone, which had an impact on people at the time, and on generations to come in terms of naval strategic thinking. However, not everything was related to the allied versus axis conflict during WWII or to the Western versus Communist disputes in its aftermath. A conflict of close interests would provoke a crisis between Brazil and France, within the Western bloc, as will be seen in the next section.

Lobster War (1961-1963)

The so-called 'Lobster War' – perhaps the most significant international crisis involving Brazil in the maritime domain after World War II – was a dispute between Brazil and France over the catch of lobsters in the Brazilian continental shelf of the Northeast region.

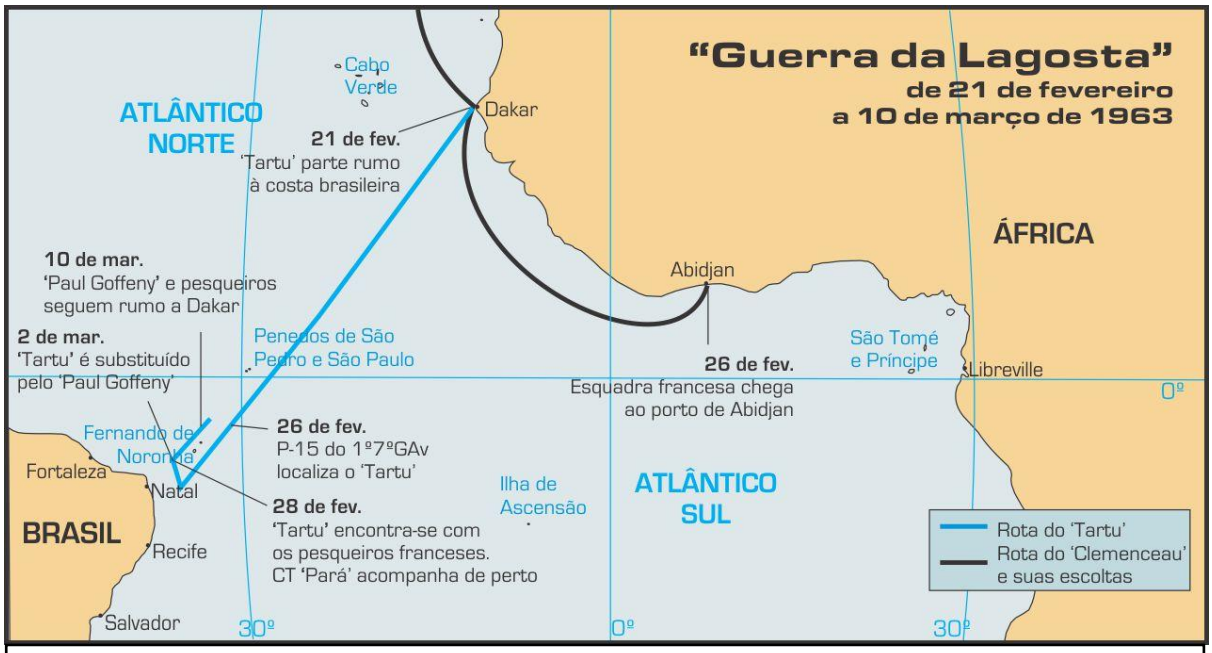
(2) 40 mm; (8) 20 mm, (3) torpedo tubes; A/S rocket-launcher; aft mortars and depth charges launchers (Gama and Martins, 1985, p. 284)

[41] These were named *Marcílio Dias, Mariz e Barros*, and *Greenhalgh* (Gama and Martins, 1985, p. 284).

This crisis occurred between February 1961 and March 1963, with tensions escalating after a number of Brazilian Fleet warships were sent from their base in Rio de Janeiro to the operational area as of 24 February 1963 (Braga, 2004). This happened in response to French President De Gaulle having ordered a warship – the destroyer *Tartu* – on 20 February, to escort French fishing vessels, thus allowing them to continue fishing in the area (see Figure 2.6).

The dispute originated from separate interpretations by both parties regarding whether lobsters were a continental shelf natural resource – in essence, whether they were Brazil's or not. For the French, as stated in the 1958 Geneva Convention – even though it had not been signed by either France or Brazil – fishing was permitted outside of the territorial sea area. This corresponded to three nautical miles for Brazil at that moment, with 12 for a contiguous zone, and up to 200 for the continental shelf (Braga, 2004, pp. 15–17). At that time, the concept of the exclusive economic zone (EEZ) did not exist – it only came into force with UNCLOS III – and Brazil did not prohibit fishing. However, Brazil defended itself technically, by stating that lobster was a sedentary species, distinct from fish. France disagreed with this position.

As for the context, both countries had been experiencing political instability. France was emerging from a period of colonial independence with a negative domestic impact, politically and economically. Morocco and Tunisia had declared independence in 1955 and 1956, respectively, and Algeria in 1962, after a series of bloody rebellions ongoing since 1954 (Silva et al., 2004, pp. 44–45).



'Tartu' route
'Clemenceau' and her escorts route
21st February – 'Tartu' departs heading Brazilian coast
26th February – French Fleet arrives at Port of Abidjan
26th February – P-15 of 1°7°GAv spots 'Tartu'
28th February – 'Tartu' meets with French fishing ships. 'Pará' destroyer follows closely
2nd March – 'Tartu' is relieved by 'Paul Goffeny'
10th March – 'Paul Goffeny' and fishing ships head to Dakar

Figure 2.6 – Lobster War – main events. Adapted from Poggio (2013)

Brazil, in turn, faced its newly elected President Jânio Quadros resigning in August 1961, seven months after an overwhelming vote. He was replaced by Vice President João Goulart, who was resisted by segments of society for his proximity to leftist groups. This resulted in a change of the type of government in Brazil in September 1961, which saw the country move from a presidential to a parliamentary republic, so that Goulart could be accepted as president. The presidency was restored only on 24 January 1963 (Braga, 2004, pp. 10–11; 61).

During this and the following month, miscommunications among Brazilian and French pressure groups, involving both Presidents, resulted in the escalation of the crisis, with the French sending the destroyer *Tartu* on 21 February 1963 in the knowledge that Brazilian ships would continue to apprehend French fishing boats (Braga, 2004, pp. 61–78). In response to what was perceived as a great challenge, as well as the fact that apart from the *Tartu*, there were other French warships off the west coast of Africa – not far from Brazil's coast – on routine exercises, the Brazilian government decided to react in the strongest possible way, The government did so by sending, initially, three destroyers and a cruiser to the disputed area with the operational mission of impeding the French vessels from catching lobsters on the Brazilian continental shelf (Braga, 2004, p. 85). While in hindsight some have considered the Brazilian move an overreaction towards a single French destroyer in the area, there were worries on the part of the Brazilian naval leadership about the remaining French taskforce off the African coast, since by then they did not know about the French Navy's ensuing intentions (Poggio, 2013).[42]

In practice, the Brazilian ships remained based in the city of Recife – close to the area – and took turns patrolling and visually accompanying the *Tartu* and the fishing boats. They were complemented in their mission by the Air Force, notably B-17, P-15, and P-16 aircraft. The situation de-escalated on 10 March 1963, when France determined the withdrawal from the Brazilian coast of the only French Navy ship (now the tender Paul Goffeny, which relieved the destroyer *Tartu* on 2 March) and four fishing boats (Braga, 2004, pp. 90–147). Both countries finally agreed a solution in December 1964 (Becker-Weinberg, 2010, p. 26).[43]

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[42] In *Gunboat Diplomacy, 1919-1991*, James Cable classified this incident of limited use of force as 'catalytic' and 'expressive' (1994, pp. 190–191). It is worth recalling that the former definition considers the forces just in position, ready to seize any valid opportunity – with no clear preconceived objective – or to avoid the other side doing the same, while the latter regards the limited use of force to emphasise attitudes or reinforce unconvincing statements (Cable, 1994, pp. 46–61; 62–64). Arguably, the more detailed situation is better explained by the latter than the former definition, given that the Brazilian diplomatic messages at the time insisted that the fishing boats would not be allowed to carry on their activities before a bilateral final solution to the case was reached (Braga, 2004). France found the situation unacceptable: having their fishing boats already in the area but not fishing would represent a significant financial loss for them, with an ensuing domestic catastrophe for the French government (Braga, 2004). The act of sending Brazilian warships to the area, with their clear stated task reflecting the content of these messages, only reinforced Brazil's position (Braga, 1994, pp. 33–46). Therefore, it is disputable that there was 'no clear preconceived objective', weakening the explanation power of the 'catalytic' category. At the same time, with this clear intention, the 'purposeful force' category is also a reasonable definition to better explain the situation, since it implies the limited force being used to induce France to stop catching lobsters, in which, ultimately, Brazil was successful.

[43] 'The dispute ended with the celebration of an agreement on 10 December 1964, which granted the right of fishing to twenty-six French ships for a period of five years in the designated *forbidden areas.* In return, French fishermen should deliver to the Brazilian fishermen '[...] a certain percentage of their catch of lobsters as well as other species' (Becker-Weinberg, 2010, p. 26).

This episode highlights two important points regarding naval strategic thinking. The first relates to strategy of means, under the recurrent topic of the maintenance and readiness of the naval force. The Brazilian ships were in a difficult situation in terms of material and ammunition, and many were under repair or had to finish their repairs at short notice. At the same time, some of the destroyers had been loaned to Brazil by the U.S. Navy,[44] and there was pressure from them, via their naval attaché, not to use those ships against a NATO ally (Braga. 2004, pp. 157–161). The naval leadership refused this request, reminding them of the Inter-American Treaty of Reciprocal Assistance (IATRA) and Brazil's support for the Allies in WWII (Braga, 2004, pp. 157–161).

Additionally, this episode revealed the precarious situation of the only two submarines,[45] both from the United States and used in WWII. Apparently, this experience immediately influenced the BN's efforts to remodel the then Submarines Flotilla, redesignated as Submarine Force in May 1963, with the creation of the Submarines Training School and the incorporation of two former U.S. 'Fleet-type' submarines in September 1963 (FGV and Marinha do Brasil, 2014, p. 90).[46]

The presented limitations only reinforced the Navy's concerns about trying to be as independent as possible in terms of means. As will be seen in section 2.3, this contributed to a growing concern in terms of strategy of means – with for instance the 1967 procurement programme – stressing the importance of matters such as nationalisation, development and security. This tendency would increasingly associate defence with development in the country, a characteristic present in naval documents throughout the timeframe of this thesis, but especially explicit in the defence declaratory documents in the second half of the timeframe, as will be seen.

The second point depicts what would be a more frequent topic from that moment onwards: the dispute over marine resources, which would firstly be associated with risks, opportunities and ends, and subsequently with means and ways. It should be noted that Brazil at that moment had its territorial sea defined at three nautical miles, from 1914 onwards (Silva, 2015, pp. 273–282). This episode contributed to a cumulative concern with marine resources, likely influencing, under the duality risk-opportunity, the subsequent changes in the territorial sea breadth, to six nautical miles in 1966, 12 nautical miles in 1969, and 200 nautical miles in 1970 (Silva, 2015, pp. 273–282). Only after UNCLOS III in 1982, Brazil ultimately defined its territorial sea as 12 nautical miles in 1993. It is also worth remembering that UNCLOS III reinforced the importance of marine resources in the new international legal order, with the new concept of the exclusive economic zone (EEZ).

Thus, while the experience in both world wars, with reflections on the Cold War, directed Brazil's efforts towards a common adversary in the Western world, the experience in the Lobster War rebalanced those efforts with a particular interest as an end, namely preserving

[44] The loaned items were a former U.S. 'Fletcher' class. Brazilian designation: D27 – *Pará*; D28 – *Paraíba*; D29 – *Paraná*; D30 – *Pernambuco*. The first two were loaned to Brazil in 1959, the rest in 1961 (Poggio, 2013).
[45] S14 – *Humaitá*, and S15 – *Riachuelo*; former U.S. 'Gato' class; service in the BN from 1957 to 1967 and 1966, respectively (Moore, 1983).
[46] S11 – *Rio Grande do Sul*, and S12 – *Bahia*; service in the BN from 1963 to 1972 and 1973, respectively (Moore, 1983).

its strategic assets – marine resources – against any nation, sometimes traditionally friendly ones.

As discussed in this Historic Footprint section, many aspects of this BN's engagement with the nation helped frame its naval strategic thinking. In the monarchy period, the first basis was laid down by the need for survival and for the unity of the nation, across its vast territory. Subsequently, the more than 40 years of frequent tensions with Southern Cone nations, with Brazil defending its geopolitical interests, helped consolidate the navy and its strategic thinking within the context of predominantly coastal and riverine clashes. Despite recurrent structural and material difficulties, it is perceptible that there was an increasing consolidation of naval strategic thinking over time, transforming from no strategic concept to a developed awareness of its operational spaces – oceanic, littoral and riverine. This transformation correlated with adequate desired means, as was seen in the attempt to make the 1868 procurement programme happen. This meant that Brazil's naval strategic thinking sought to materialise a maritime strategy.

This framing continued in the Republic period. While the difficult situation of the BN continued in many aspects, the riverine driver started to make room for more open-sea international events – e.g. the Battle of Tsushima – to have more influence in the materialisation of Brazil's strategic thinking, such as in the 1906 procurement programme.

The perfect examples of Brazil's increasing projection onto the international stage, with more blue water impact that enabled Brazil to think strategically, happened with the two world wars. The precarious situation of the BN previous to and during the First World War helped build a Brazil-U.S. partnership in the 1920s, which had a great impact on its naval thinking. This partnership with the American Naval Mission would last more than 50 years, providing a welcome – at least initially – 'dependence', as put by Vidigal (1985).

This partnership also allowed for a more proximate interaction between the BN and the U.S. Navy during the Second World War, which in turn was reinforced after the war, with implications for Brazilian naval strategic thinking. This led to the predominance – materially and doctrinally – of the anti-submarine capability of the warfighting spectrum. This effect persisted over the Cold War, with the BN, a middle rank navy, playing an important role as part of the Western security community effort in the South Atlantic.

A new perspective, as noted, arose with the episode of the Lobster War, an unexpected crisis that resulted from a dispute with a friendly Western nation over a marine living resource. On the one hand, strategy of means came into play. The poorly prepared naval force and the pressure from the United States for Brazil to not use loaned ships, only reinforced concerns about searching as intensively as possible for higher levels of independence. This increasingly helped to foster in Brazil's strategic thinking the association between defence and development. More immediately, it affected Brazil's naval strategic thinking, also encouraging, as seen, the improvement of the submarine force, thus raising the BN's prospects of sea denial capability for warfighting against a superior force.

This strategy of means aspect, under a cumulative effect and reinforced by this episode, paved the way for a new procurement programme in 1967. It diversified from the predominant anti-submarine capability – generating ultimately, for instance, the general purpose Frigates – and intensified the development of a sea denial capability with submarines, with the ordered Oberon class from the UK around 1970. Not coincidentally, these means have been acquired

from European countries as opposed to the United States. The BN's engagement with the nation in its search for a higher grade of autonomy and its impacts on naval strategic thinking will be addressed in section 2.3.

On the other hand, the war provoked an adjustment in Brazil in terms of threat perception, hence leading to the reassessment of risks, opportunities and, therefore, ends. While the result of WWII brought the goal of being prepared to contain a common state adversary in the context of the Cold War, this episode added the goal of protecting a valuable marine resource against potential enemies, in this case a Western maritime power. It likely influenced, as noted, Brazil's decision to gradually extend its territorial sea, starting with six nautical miles in 1966, up to 200 in 1970, as a way of dealing with the risk-opportunity duality.

The marine resource aspect, reinforced by UNCLOS III, compounded a long cumulative effect, and paved the way for the insight and formulation of the concept of the Blue Amazon in the mid-2000s, as another relevant engagement of the BN with the nation. This therefore highlighted geographic aspects in the challenges facing Brazil, as will be addressed in the next section.

With regards to the maritime strategy perspectives established in the previous chapter (Section 1.5), the evidence addressed in the current chapter up to this point was better matched by the lenses of the obvious 'history' part of the first perspective, and of the narrow (traditional) character of the third perspective. The history part helps us to elucidate the formulation of maritime strategy positions over the years. However, for the narrow maritime strategy during this historic period, the predominance of the more traditional aspect of warfighting and associated competitive diplomacy is clear. In this sense, as expected, the military and diplomatic sides of Booth's (2014)/Grove's (1990) trinity are emphasised.

However, with the marine resources disputes of the 1960s and onwards, the roots were anticipated for the increasingly broad characterisation of maritime strategy from the third perspective, and the fifth perspective, as related to maritime security. Both of these perspectives uncovered constabulary aspects, and reinforced the respective side of the strategic triangle metaphor. In the next two sections, this position will be assessed, leading to the conclusion of this chapter.

2.2 'Blue Amazon' concept and the geographic challenge

The results of UNCLOS III with regards to maritime spaces and sovereign rights had a direct connection with the 'Blue Amazon' concept, idealised and created by Admiral Guimarães Carvalho as Commander of the Navy, from January 2003 to March 2007 (Carvalho, 2005a). Brazil, similar to other countries, soon became aware of the enormity of the ensuing challenge. In particular, it faced challenges related to the defined rules for the management of its exclusive economic zone (EEZ) – the consensual concept defined by UNCLOS III – and continental shelf, along with possibilities for the expansion of the latter. Brazil's EEZ comprised around 3.5 million km^2, which corresponded to around 41% of the country's land territory, with Brazil already being the fifth largest country in the world (Carvalho, 2005a). The Law of the Sea also opened up the possibility for states to extend their continental shelves by up to 350 nautical miles from the coastline or up to 100 nautical miles from the 2,500 m isobath

(Carvalho, 1982, p. 53). Brazil submitted its first claim in May 2004 to the Commission on the Limits of the Continental Shelf of the United Nations (CLCS) – later approved – in order to increase its total area of exploration of natural resources[47] from 3.5 to around 4.4 million km^2 (Carvalho, 2004). It cannot be forgotten that Brazil already faced huge geographic challenges, with its large coastline of more than 7,400 km facing the Atlantic Ocean, as well as its around 27,500 km of navigable rivers, as noted in section 1.2 (see Figure 1.1).

Those claims, however, have a historical background. The very existence of the 'Interministerial Commission for Marine Resources' (*Comissão Interministerial para os Recursos do Mar* – CIRM), created in 1974 (Brasil. Presidência da República, 1974), which will be explored in more detail later, exposed opportunities for the exploration of resources at sea. It is worth noting that the Brazilian Petroleum Corporation – Petrobrás, founded in 1953 – discovered the first oil field offshore the Brazilian continental shelf in 1969, up to 30 m in depth at that moment (Petrobrás, 2019). As happened in many parts of the world, this was just the start of a continuous momentum for marine exploration, which has been increasingly developing.

For the sake of understanding the BN's proximity to the matter and its strategic implications, it is also worth remembering that the Minister of the Navy – Commander of the Navy after 1999 – had always been the coordinator of the CIRM (Brasil. Presidência da República, 1974). Additionally, the government had created the Secretariat of CIRM (SECIRM) within the Navy in 1979, which was run by a rear admiral, whose purpose was 'to advise the Minister of State Coordinator of the CIRM and to execute the activities pertaining to the technical and administrative duties of the said Committee' (Brasil. Presidência da República, 1979). Its roles and implications will be further evaluated in the next chapter.

Apart from its involvement in the rest of the South Atlantic, as will be seen in this section, the Blue Amazon concept mainly highlights the aspect of safeguarding national resources and their enjoyment, as raised by Booth (2014) and Grove (1990) regarding the policing/constabulary role. In fact, the continuous action over decades, related to scientific research, fostered and promoted in Brazil by the navy-led CIRM, has produced many results stemming from the pluriannual Sectorial Plan for Marine Resources (*Plano Setorial para os Recursos do Mar* - PSRM), as will be addressed later (section 3.2.2). As a consequence, the concept also demonstrates an essential connection with the concept of maritime security. The Navy highlighted this concept by defining four Blue Amazon branches: environmental, scientific, economic, and sovereignty (Marinha do Brasil, 2019d). This division shows a linkage with the cited core dimensions of maritime security presented by Bueger and Edmunds (2015, 2017). The environmental branch links to the dimension that Burgher and Edmunds refer to as the 'marine environment', the scientific and economic branches to 'economic development', and the sovereignty branch to 'national security'. The 'human security' dimension would mostly link to the environmental and economic branches, given their pervasive character in this dimension. Additionally, the commented double function of the

[47] 'The natural resources referred to in this Part [(Continental Shelf)] consist of the mineral and other non-living resources of the seabed and subsoil, together with living organisms belonging to sedentary species. That is to say, organisms which, at the harvestable stage, either are immobile on or under the seabed or are unable to move except in constant physical contact with the seabed or the subsoil' (Commission on the Limits of the Continental Shelf, 2004, p. 54).

Navy leadership as Commander of the Force and Maritime Authority (explained in section 1.4.1) reinforces the Navy's close involvement with all branches of the concept and, therefore, with all maritime security dimensions, as will be further developed.

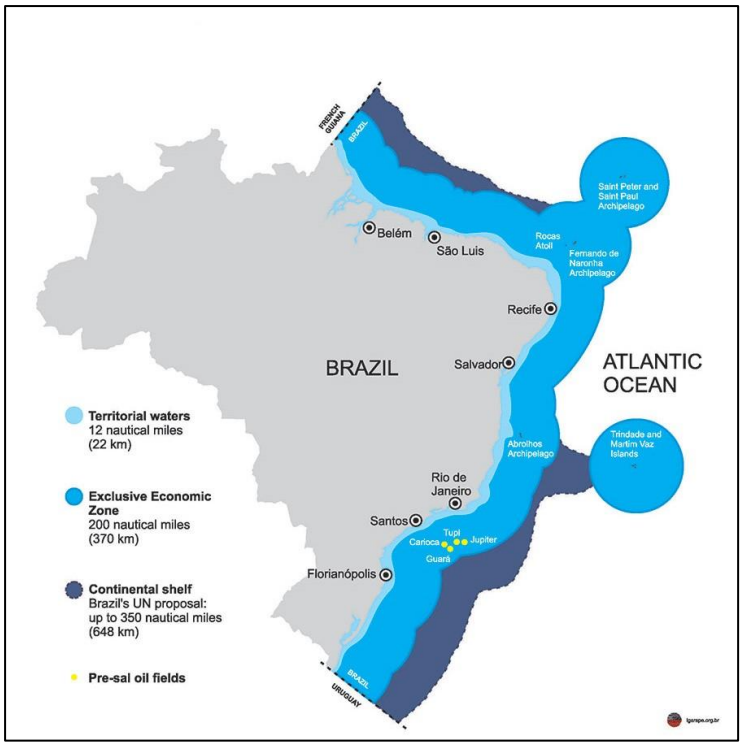
Despite the coherent conceptualisation of the idea of the Blue Amazon and its apparent success in conveying the message about the need for more awareness concerning Brazilian jurisdictional waters and the wealth therein, budgetary constraints have also been an important spark in creating the concept. As Admiral Guimarães Carvalho explained,[48] when he assumed the position of Commander of the Navy, the budget was the most serious issue (personal communication, March 29, 2019). The Army had continuously held relevant leverage to obtain resources through factors like military conscription, where annually around 45,000 reservists were admitted (R. Carvalho, personal communication, March 29, 2019). Any lack of budget to keep them in the Force for the whole year would have considerable social impact, since the conscripts usually came from lower-income classes. This obviously affected any politician's inclination towards a budget release regarding such a topic (R. Carvalho, personal communication, March 29, 2019).

At the same time, the Admiral perceived substantial Congress and public goodwill concerning the question of the Amazon – where the Army had a larger presence than other forces – with particular regards to its borders and sovereignty (personal communication, March 29, 2019). Admiral Guimarães Carvalho then realised the need for action to enable strategic communication, something that was appealing to society. In this way, the Navy could raise awareness concerning the significance of its presence in Brazil's maritime zones and could protect the country's maritime assets (R. Carvalho, personal communication, March 29, 2019). In essence, it meant another attempt to tackle sea blindness in Brazilian society.

Being an area as large as the 'green' Amazon – 4.4 million km^2 as compared to around 4.2 million km^2 in the case of the Amazon biome (Instituto Brasileiro de Geografia e Estatística, 2019), and considering that the Navy has always advocated for a blue-water navy, it was therefore reasonable to refer to the Brazilian jurisdictional waters as the 'Blue Amazon' (R. Carvalho, personal communication, March 29, 2019). Admiral Guimarães Carvalho then managed to publish three articles in a widely circulated Brazilian newspaper to sell the idea between February 2004 and May 2005, notedly achieving a significant impact, as developments have continuously ensued (2004, 2005a, 2005b, personal communication, March 29, 2019). One of the indications of full acceptance by the political class was President Rousseff's and Minister of Defence Mr. Aldo Rebelo's voting into law in 2015 of the 16 November as the 'National Day of the Blue Amazon', 'to be celebrated throughout the national territory' (Brasil. Presidência da República, 2015). It is no coincidence that this is the same date when, in 1994, UNCLOS III came into force, after being ratified by the sixtieth state, which undoubtedly rendered the celebration more symbolic. Besides this connection with UNCLOS, the Navy has often associated the concept of the 'Blue Amazon' – currently with an area of around 5.7 million km^2 of the continental shelf, after the claims of 2017 and 2018 before CLCS (compare Figures 2.7 and 2.8) – as part of the strategic justification for its procurement programmes. These included both the current 'submarine development

[48] As described in the interview with the author on 29 March 2019.

programme' (PROSUB), and '*Tamandaré* class frigate programme' (Marinha do Brasil, 2019h), which reinforced the weight of its symbolism.



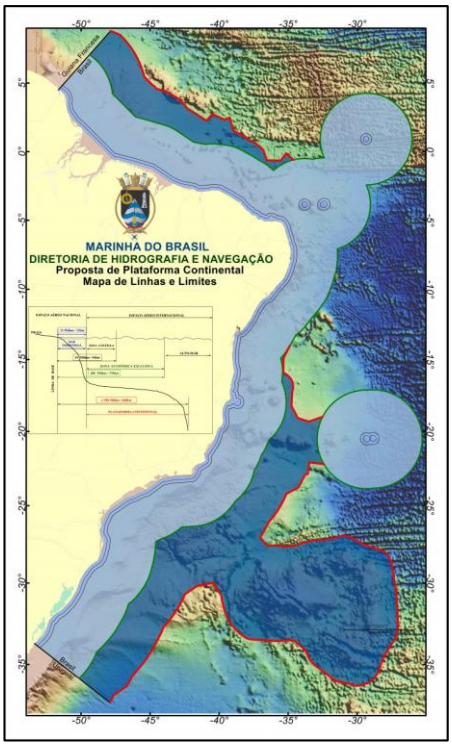


Figure 2.7 – The Blue Amazon in 2015, before the 2017 and 2018 claims before CLCS. Adapted from Thompson and Mugaah (2015)

Figure 2.8 – The Blue Amazon after the 2017 and 2018 claims before CLCS (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019b)

It is also worth noting the connection between the Blue Amazon concept, born in 2004/05, and the concept of 'Strategic Surroundings' (see Figure 2.10), born in the National Defence Policy (PDN) of June 2005. This Defence Policy was the second after the initial policy of 1996, which will be addressed in the next chapter. While the former concept concerns the Brazilian jurisdictional waters as far as the limits of the extended continental shelf approved by the United Nations, the latter has been established with the purpose of deepening Brazil's 'ties of cooperation', via extrapolating the South American subcontinent and 'including the projection through the South Atlantic border as well as the coastal states of West Africa' (Brasil. Ministério da Defesa, 2005). As will be seen with the Defence National Policy of 2012, this reach included Antarctica and was extended 'to the proximities of the Caribbean Sea' (Brasil. Ministério da Defesa, 2012, p. 21).

When asked in interviews about the correlation between both concepts, the former Minister and the former and current Commanders of the Navy in general contended they were complementary. While they welcomed the Blue Amazon as a concept to raise awareness about the fundamental relevance of the maritime domain for the country, all of them stressed the importance of the South Atlantic as the natural operational space for Brazilian naval power.

Admiral Ilques, for instance – current Commander of the Navy (2019) – recalled the pertinence of Brazil's presence well beyond the continental shelf limits, not only for security

purposes, but also for safety commitments, as with the search and rescue service (personal communication, April 1, 2019). This service is also conducted by the Brazilian Air Force, covering an area of 15.3 million km^2 (see Figure 2.9), around three times the size of the Blue Amazon area (Estado-Maior da Armada, 2018; personal communication, April 1, Barbosa Junior, 2019).

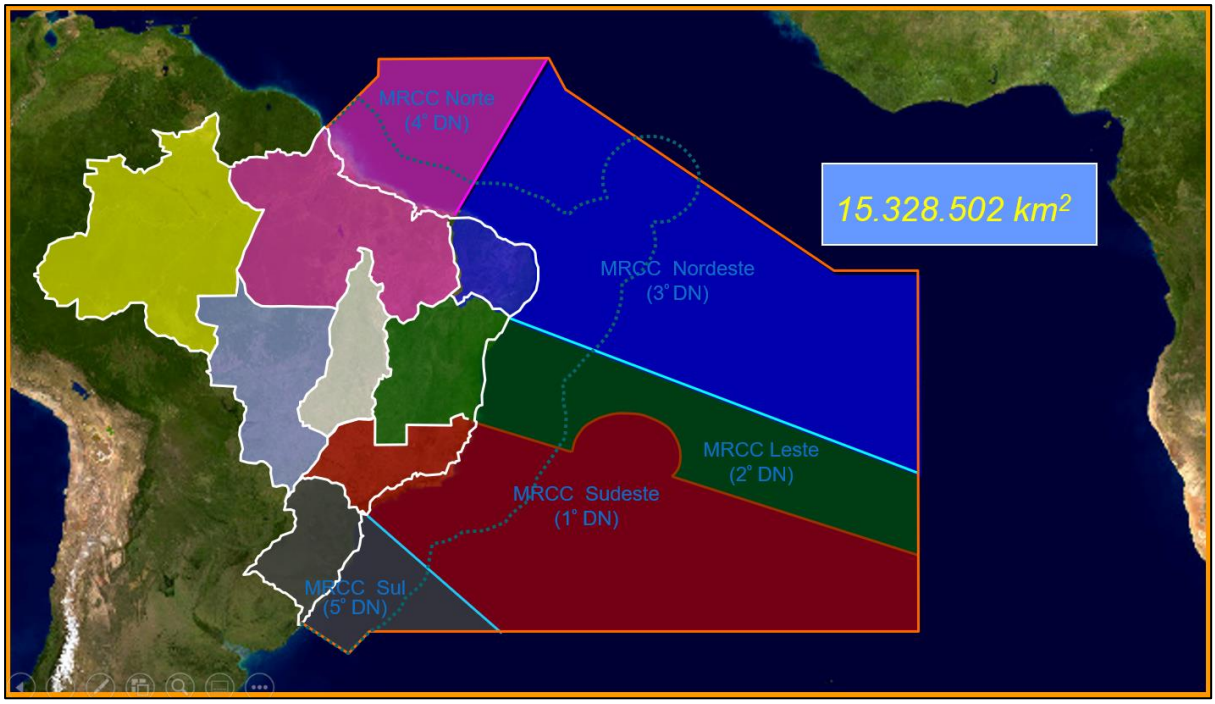


Figure 2.9 – Brazilian SAR Maritime Area (Estado-Maior da Armada, 2018)

The previous Commander from 2015 to 2019, Admiral Leal Ferreira, emphasised naval power as a guarantor of Brazilian maritime interests – such as sea lines of communication – which are evidently not limited to its continental shelf area and are responsible for around 95% of Brazil's international trade (personal communication, March 21, 2019). In this sense, he acknowledges the power of the Blue Amazon concept in mitigating sea blindness in the Brazilian society (personal communication, March 21, 2019).

Admiral Moura Neto, Commander from 2007 to 2015, highlighted Brazil's presence in the South Atlantic and the Navy's frequent and traditionally cooperative relations with African countries. He cited, for instance, naval exercises in the Gulf of Guinea and the biannual ATLASUR, which gathers navies from South Africa, Uruguay, Argentina, and Brazil (Marinha do Brasil, 2018a; personal communication, March 27, 2019).

The author of the Blue Amazon concept, Admiral Guimarães Carvalho, in underlining the importance of the South Atlantic, drew attention to the concept as the 'naval force's last trench' and, at the same time, 'its first springboard', emphasising the importance of the BN's projection further into the South Atlantic (personal communication, March 29, 2019). Additionally, on being asked whether it has eased the budget release at any level, he expressed a positive view. Yet, he also pointed out that the Navy budget in 2005 was already higher than

the previous ones, allowing, for instance, for the conclusion of the delayed commissioning of the modified IKL 209 submarine, the *Tikuna* (personal communication, March 29, 2019).

Admiral Mauro Cesar, Minister of the Navy from 1995 to 1999, in turn, stressed that, although the South Atlantic was Brazil's priority, there was a need to be concerned with all oceans, concerning the piracy threat against Brazilian shipping (personal communication, March 26, 2019).

Figure 2.10 – Brazil's Strategic Surroundings (Brasil. Marinha do Brasil, 2020)

As noted, multiple concerns have been raised about the full spectrum of peace-crisis-conflict over each category of maritime space – the Blue Amazon, SAR area and Strategic Surroundings – encompassing all of these aspects, and even beyond. This in turn has impacted the perceptions that affect naval strategic thinking. Regarding the historical footprint assessment, notably the episode of the Lobster War, and further considerations in terms of naval and defence policies and strategies, a balance that can be observed about these multiple concerns is one of security configuration at sea, driven either by assets protection or by possible threats. There has been an attempt for a mixture of both approaches, as will be made clearer in the discussions in the next chapter.

With regards to maritime strategy perspectives, the content of this section highlights in more detail the thought part of Hattendorf's (2013) triad of history-practice-thought (first perspective on maritime strategy), due to the constructs related to maritime spaces. At the same time, it highlights the third and fifth perspectives by entangling, respectively, the constructs of a broader maritime strategy and maritime security. This in turn enables the enlargement of the strategic scope, including traditional warfighting aspects, but also goes beyond it. Namely, it considers the usual aspects of the constabulary field related to maritime security, but arguably

extrapolates it, reaching a deeper involvement of the BN with the Brazilian scientific community in the exploration of marine resources, as this section has indicated, and as will be detailed in the next chapter (section 3.2.2).

In relation to the function of navies approach, the perspectives above demonstrate that, besides the military and diplomatic sides, the more recent the circumstances, the more the constabulary side shows its importance in the BN's case. This will become even clearer in the next chapter, particularly in sections 3.2.1 and 3.2.2, thus offering increasingly more room for the design of the functions of the Navy's polygon, as mentioned at the beginning of the Introduction.

In conclusion, the Blue Amazon concept is the result of the cumulative effect of the growing importance of marine resources as strategic assets for nations, reinforced by UNCLOS III developments, as already explained. The need to engage with and foster awareness among Brazilian society with regards to the importance of this concept, induced the BN towards this movement of strategic communication. In addition to other maritime space constructs, namely Strategic Surroundings and the SAR maritime area, not to mention the great riverine lengths, the Blue Amazon is part of the significant geographic challenges faced by Brazil. All this has had a great influence on perceptions about risks and opportunities that has added up to the strategic analysis needed to elaborate on Brazil's ends, and subsequent ways and means, which will compound its maritime strategy and therefore shape its naval strategic thinking. As will be seen in the next chapter, the manifestations of this influence can be noted in defence and naval documents, with implications for the desired naval force. These topics will be, to some extent, addressed in the next section in the BN's last proposed engagement with society to cope with these challenges, through its strategy of means.

2.3 Quest for autonomy

The search for autonomy in Brazil's case can be addressed through two dimensions: materiel and thought. However, these are usually interwoven. The latter will show its relevance in the necessary interactions between naval policies and defence declaratory policies, which started to exist in Brazil from the mid-1990s onwards, but more intensely after the 2000s. However, this dimension can be observed from the first moments of the twentieth century through the timeframe – e.g. by doctrine evolution – and will also be stressed when the 'thought' approach (mainly sections 3.2.1 and 3.2.3) is addressed.

The materiel dimension of the search for autonomy has often been evident in Brazil's maritime and naval history, as seen in Vidigal's (1985) work, as well as other texts. Some success has been achieved, according to historical period and circumstances, as will be seen in this section. Yet, as a developing country, Brazil's materiel advancements have usually been linked with countries like the United States, the United Kingdom and other European countries. The BN, for instance, always looked to the UK Royal Navy as inspiration throughout the nineteenth century (Vidigal, 1985, p. 74). After Brazil's independence, the strong links between England and Portugal made the Royal Navy more present in Brazil (Vidigal, 1985, p. 74). Additionally, the arrival of British officers and sailors during the BN's formation decisively influenced the process (Vidigal, 1985, p. 74). Brazil also acquired from Britain most of its

ships, ‘coming along with it doctrine, practices and tradition’ (Vidigal, 1985, p. 74). In fact, European countries, with Britain at the helm, were predominant as naval suppliers until World War II, after which the United States assumed such a position (Morris, 1979, p. 183). According to Morris, from 1890 to 1939, 75% of warships were British-built, 15% were products of continental Europe, and 10% were from Brazilian yards (Morris, 1979, p. 183).

However, since the beginning of the twentieth century, with the structural deficiencies of an underdeveloped country, lacking vital industrial and technological capacity for new types of ships, the BN’s leaders realised that external support would be crucial in order to build a reasonable naval force (Vidigal, 1985, p. 74). Concurrently, after the United States’ success in the Spanish-American War of 1898, the First World War confirmed its increasing status as a great power with a strong navy (Vidigal, 1985, p. 74). This partly created the context for an approximation between both countries, which resulted in the establishment of the U.S. Naval Mission in Brazil in 1922, as mentioned, with the official purpose of ‘increasing the efficiency of the Brazilian Navy’ (Morris, 1979, p. 182). In practice, however, Morris clarified that it ‘also intended to limit other foreign influence’ (Morris, 1979, pp.182-183), meaning a deliberate fostering of a Brazilian dependence on the U.S. in naval matters.

As noted, the U.S. Naval Mission lasted until 1977, with a gap from 1930-1936 (Morris, 1979, p. 182). In Vidigal’s argument, the Mission marked the beginning of ‘a long and constructive relationship between the two navies’ (1985, p. 75). He acknowledges that, under the American influence:

> Brazil learned how to conduct war at sea in modern terms, in contact with recently sophisticated equipment, like sonar and radar, started to think in global terms rather than in regional ones, awakened once more to our Atlantic calling. (1985, p. 89)

Nevertheless, he lamented that, besides complete material dependence, the relationship would add a ‘sterilizing intellectual subordination’ in the subsequent years (1985, p. 89). Thus, he concludes, until President General Geisel’s administration (1974-1979), when the U.S. Naval Mission was cancelled (1977), the Brazilian strategic conception, at all levels of expression, was ‘rigorously subordinated to the American political view’ (as an evolution of the Monroe Doctrine, 1823), which led to ‘discouraging any original thinking’ (1985, p. 93). This automatic alignment to the United States, he claims, characterised Brazil’s strategic vision of this period, and the Navy, more than any other segment in the Brazilian military, ‘suffered deeply from this situation’ (1985, p. 93). That is the reason why he called this period from 1910 to 1977, as noted in section 2.1, the ‘U.S. Dependence’ or ‘Decline’ period, in terms of Brazilian naval strategic thinking. The Brazilian strategic conception since the end of the war had clearly been of a defensive character, and was expressed in practical terms, with a total emphasis on anti-submarine warfare (Vidigal, 1985, p. 93).

Admiral Flores (1931-2019; Minister of the Navy from 1990 to 1992) is also explicit in indicating this aspect of the thought dimension. He explains that the BN, despite all its deficiencies and limitations at the beginning of the twentieth century, had centred its fleet on its two battleships, *Minas Gerais* and *São Paulo* (acquired in 1910 from Britain), until the Second World War (Flores, 2002b, p. 12). However, the war demanded the task of traffic protection against the German submarine threat, for which no preparations had been made, with all the help coming from the U.S. Navy. This led to a strong operational, logistical and

doctrinal dependence, which, because of the Cold War, extended for 30 to 35 years (Flores, 2002b, p. 12).

Even the BN's then capital ship, the NAeL *Minas Gerais* – formerly British HMS Vengeance, acquired by Brazil in 1956 and commissioned in 1960 – was mainly tasked with anti-submarine warfare. The Brazilian concept was merely a reproduction of the Americans', as Vidigal (1985, p. 96) concludes. In that sense, the further case of the aircraft carrier *São Paulo* – acquired in 2000, formerly the Foch, French Clemenceau-class – would represent one more effort to shift from that position.

Given the limitations placed on building its own warships, especially more sophisticated ones, Brazil usually appealed to developed countries. The overall setting of the Brazilian naval arms trade with the United States and Western European countries, from the end of World War II to the 1980s, partially led to what the BN force structure came to be from 1985 and beyond. With particular regards to the first half of that period, Morris (1979, p. 188) indicated:

> Foreign arms transfers to Brazil were mostly from the United States during the postwar period up to the late 1960s. With the onset of World War II, European arms sources to the region dried up, and after the war, the United States dominated the market, largely through the sale of surplus weapons, up to the late 1960s.

While, in terms of strategic conception and doctrinal influence, America was dominant throughout nearly all of the Cold War period, and to a certain extent beyond, there have been changes in terms of arms trade as an aspect of foreign influence regarding Brazil. As Morris (1979, p.189) explains, this was partially due to internal developments in Brazil, in relation to U.S. policy, and to international arms competitors.

In terms of internal developments, there were, during the military governments (1964-1985), three Brazilian military goals, which influenced this change in foreign relations: modernisation, self-sufficiency, and diversification (Morris, 1979, p. 189). This has been enhanced by strong economic growth in Brazil from 1968 to 1973, referred to as the *milagre econômico* ('Brazilian economic miracle') (Veloso et al., 2008). The effort to work towards 'modernisation'[49] in the Navy's case was mostly expressed in the Procurement Programme of 1967 ('*Programa Decenal de Renovação dos Meios Flutuantes*'; 'Decennial Programme for the Renovation of Ships'), which was still driven by strategic concerns on maritime traffic protection against the submarine threat (Morris, 1979, p. 190; Vidigal, 1985, pp. 99–100). In terms of 'self-sufficiency', there were many obstacles, especially in relation to naval armament, which was usually dependent on significant technological sophistication and heavy capital investment. Naval leaders acknowledged at the time the need to rely on foreign imports for an indefinite time, amid efforts to nationalise production (Morris, 1979, p. 191). The 'diversification' of the source of arms imports, as was the Navy's objective, was superior to self-sufficiency. U.S. policy restrictions – e.g. in not exporting sophisticated arms, and not allowing naval weapons any co-production arrangements – as well as increasing European

[49] As Morris indicates, the modernisation effort could be divided into two periods: from 1967 to 1973, with the boom of the economy, and after 1973, which moved at a slower pace because of the international oil crisis (Morris, 1979, p. 190).

competitiveness, added to the Brazilian policy-makers' resolve to favour diversification (Morris, 1979, pp. 193–194).

As exporting arms suppliers, the United States and Western European countries had distinct perspectives. The former, as Morris mentioned:

> tended to regard arms transfers as an extension of political relationships which promoted the supplier's influence. In contrast, Western European states have tended to regard arms transfers as a commercial transaction in the sphere of international trade (Morris, 1979, p. 197).

Despite the Americans' concerns about the Brazilian diversification of arms imports, the United States' political and naval influence remained consistent. In any case, due to policy readjustments, the United States managed to regain a prominent position as an arms supplier to the naval sector from around 1973 onwards. However, the United States. was not in as dominant a position as before, owing to Western European competitiveness (Morris, 1979, p. 200), as will be noted in the next chapter.

A summary of the cited procurement programme of 1967 is presented below. Although only a fraction of this programme was implemented, this list offers a notion of the most common types of ships that were part of the BN's force structure by the early 1980s:

> 20 anti-submarine frigates, 40 coastal minesweepers, 20 inland waterways minesweepers, 6 submarines, 1 dock ship, 1 landing ship, 50 patrol ships, 5 riverine patrol ships, 1 hydrographic ship, 1 lighthouse tender, 10 buoy tenders, 1 tanker, 2 tugs, 1 submarine rescue ship, 1 rescue ship. (Vidigal, 1985, p. 100)

Converging with Morris's assertions, Vidigal states that:

> […] a fundamental guideline of that programme was the nationalization of means, or at least the considerable decrease of the dependence in respect to maintenance and repair via the nationalization of components and spare parts. (Vidigal, 1985, p. 100)

Whether achievable or not, that guidance has been a constant in this and following procurement programmes, as evidenced in naval policies, especially from the 1970s onwards.

As previously indicated and yet to be reinforced, the two dimensions of the Navy's search for autonomy started to intensify from late 1967, concerning materiel – means, platforms and associated technology – and strategic thinking. The latter sought to distance itself from the strong American influence and the hemispheric defence in the context of the waning Cold War. The latter, as also indicated, will be made clearer when discussing naval and defence policies prior to and during the timeframe. The search for the former, despite previous points made, continued as much as possible, regardless of the difficult financial circumstances of the country over the timeframe (1985-2018), especially from the mid-1980s to the 1990s.

The procurement programmes, generally called *Programa de Reaparelhamento da Marinha* (PRM; translation 'Navy Re-equipment Programme'), could be considered one of the core parts of the Navy's strategy of means, as conceptually addressed in the Introduction. There have been many PRMs and revisions throughout the Navy's history. However, considering the deliberate emphasis on the nationalisation or diversification of sources, the 1967 programme – influenced by the country's economic boom in the 1968-1973 period – could function as a

landmark for the first of two periods that illustrated the Navy's efforts in terms of a strategy of means. One period was from that programme up to the watershed moment of the creation of the Ministry of Defence in 1999, which reflects well from the background period into the first half of the timeframe. The other was from 1999 onwards.

Regarding the first period, a project of great relevance started with the contract signed in 1970 between the BN and Vosper Thornycroft shipbuilding company, in the UK, for the construction of the Niterói-class frigates. Brazil wanted six frigates, but Thorneycroft did not want to mobilise the amount of effort required to service only one client. It was then agreed that the Brazilian Navy Shipyard (*Arsenal de Marinha do Rio de Janeiro* - AMRJ) would build two out of the six frigates – named *Independência* and *União*[50] (Freitas, 2006, pp. 72–74). This represented the start of regaining capacity for the nationalisation of complex warships, the first since the building of destroyers in the 1940s.[51]

Following the frigate acquisition programme between 1970 (contract) and 1980 (last commissioning), there were two building project, one for the corvettes (*Inhaúma* class) started from the early-1980s onwards, and the other for submarines (the German IKL 209/1400 project), from the mid-1980s onwards. Both were projects in which the nationalisation effort would continue. The decision to design and construct the corvettes in Brazil – initially twelve units, but eventually just four – was taken by the Admiral Maximiano (Minister from 1979 to 1984) administration (Freitas, 2006, p. 75). However, the high levels of inflation during the mid-1985 to mid-1995 period created lasting unfavourable effects for this and other projects (Freitas, 2007, pp. 93–94).[52] Nevertheless, the 'corvette entrepreneurship' of four units, according to Freitas, created conditions for other benefits in terms of the processes of nationalisation, e.g. influencing positively projects like the IKL 209/1400 submarine, the 1,200 ton ocean patrol ships, and the SNAC-I – the first conventional submarine conceived to be designed and built in Brazil (Freitas, 2007, pp. 102–103). Unfortunately, as indicated, the unfavourable economic conditions affected the latter two projects, and both were cancelled in 1992 (Freitas, 2007, p. 95). The 1,200-ton ships gave way to an allegedly more cost-effective imported project – although damaging to the nationalisation process – of 200-ton patrol ships, in 12 units, which were commissioned between 1993 and 2000 (Freitas, 2007, p. 95).

Despite the SNAC-I cancellation, some parallel efforts, from the end of the 1960s onwards, have aggregated benefits in developing the capacity for future projects related to the construction and operation of submarines (Freitas, 2011, p. 44). It started with the already mentioned Oberon class package of three units ordered from the UK between 1969 and 1972, delivered around the mid-1970s (Freitas, 2011, p. 44). It continued with the IKL 209/1400 ordered from Germany in the mid-1980s, which was added to the units built in Brazil during the 1980s and 1990s (Freitas, 2011, p. 44). It has also continued with parallel efforts in the nuclear field from the late 1970s onwards, as will be seen. These efforts were directed towards

[50] The former was launched and commissioned respectively in 1974 and 1979, and the latter in 1975 and 1980. Both were still in active service by mid-2019 (Sharpe, 1991, p. 57).

[51] The last destroyer was launched in 1946, the class A – *Araguaia, Amazonas, Ajuricaba, Araguari, Acre,* and *Apa* – from a British project. Brazilian Naval Engineering was helped by the U.S. Naval Mission to adapt the ship to American equipment and propulsion (Chagas, 1990, p. 4).

[52] As a consequence, these four corvettes had a significant time length between lay down and commissioning: six years in average, all between 1983-1994 (Sharpe, 1999, p. 61). This most greatly affected the fifth attempt, corvette *Barroso*, with 14 years from lay down in 1994 to commissioning in 2008 (Saunders, 2012, p.74).

the SNAC-II, the first nuclear-powered submarine conceived to be constructed in Brazil (Freitas, 2011, p. 44).

Moreover, despite the lasting difficulties and few accomplishments in shipbuilding during the second period, from 2000 up to the mid-2010s, it is worth noting the continued efforts in terms of strategy of means. Isolated examples, reflections of the corvette and submarine endeavours of the 1980s and 1990s, were, as noted, the *Tikuna* submarine, an evolved IKL class, commissioned in 2005, and the *Barroso* corvette, an evolved *Inhaúma* class, commissioned in 2008 (Saunders, 2012, pp.68, 74). Nevertheless, a still major effort would be idealised in the procurement programme of 2009, later known as PAEMB (*Plano de Articulação e Emprego da Marinha do Brasil*; translation: 'Navy Employment and Facilities Plan'), part of a Ministry of Defence programme.

PAEMB has been the first programme at that level since the creation of the MoD – or even since the 1967 programme – underscored by the optimism based on the economic boom and the favourable budgetary moment of President Lula's era, with his double mandate from 2003 to 2010. It was the result of the first National Defence Strategy (*Estratégia Nacional de Defesa* – END) in 2008, which will be analysed in the next chapter. This in turn reflected a new environment at the defence level, around ten years after the creation of the MoD in 1999. This new environment was also favoured by offshore oil discoveries in the Pre-salt layer, around 250 km off the Southeast coast, in 2007, which opened the door for a large increase in oil production in Brazil, and once again meant that marine resources could help justify more investments in the Navy.

This programme represented a high degree of ambition relative to previous plans, with an implementation timeframe from 2010 to 2030 (Pesce, 2010), but it lost its momentum with a new cycle of economic crisis in Brazil, around 2015. Although this crisis hindered PAEMB's ambitions, some specific projects could be continued. Among these included the Submarine Development Programme (PROSUB), mentioned in the previous section, which is still in progress [2019], and is the product of an agreement signed between the governments of Brazil and France, in December 2008 (Fonseca Junior, 2015, p. 30). It aims to build, besides basis infrastructure, four conventional submarines based on the French Scorpène class, with a transfer of technology (ToT), and one nuclear-powered submarine. Its nuclear aspects are left entirely up to the BN, with the French part collaborating in the submarine design (Fonseca Junior, 2015, pp. 97–121).

As PROSUB was based on the pillars of nationalisation; the training of personnel to conceive, design, build and maintain conventional and nuclear submarines; and ToT, it is a clear signal that the principle of the desired search for autonomy, envisaged since the mid-1960s was still in place (Fonseca Junior, 2015, p. 87). As noted, it was ultimately subsumed, in a certain way, by the binomial 'development and defence' of the END (2008) and further declaratory defence documents, which were mentioned and will be addressed in the next chapter.

In conclusion, the mere mention of a 'search for autonomy' is necessarily based on the assumption that some sort of dependence existed; in Brazil's case almost entirely on the U.S. Navy. However, the BN really needed this support for its development, and the U.S. Naval Mission, from the early 1920s to the late 1970s undoubtedly played an important role in this way. Within this period, it can be said that WWII – with the fundamental support of the U.S.

Navy, and the advancement it provided to the BN – was, proportionally speaking, as paradigmatic an episode for the BN as the War of the Triple Alliance.

Despite the already discussed structural difficulties over the twentieth century, the evolution provided to the BN by this long partnership was visible. It happened particularly in terms of institutional organisation and the acquisition of means, especially anti-submarine platforms, i.e. destroyers, along with the correspondent doctrine. Nonetheless, this was associated with the American strategic conception in the Cold War era – as seen in the current and previous sections, and as will be discussed further in section 3.2.2.

Therefore, as the decades passed, especially from the 1960s onwards, the more some events happened, the more Brazil's will to build its own paths grew. One example was certainly the Lobster War, explained in the previous sections, not only for the distinct nature of the strategic asset under dispute – marine resources – but also for the different character of the opponent, as an unexpected Western partner in the context of the Cold War. Episodes like this and the Falklands War (1982), briefly discussed in section 1.3.1, showed that common interests were not always fully aligned, a simple truth of international relations.

These factors, associated with arms market movements and Brazil's economic boom between the late 1960s and mid-1970s, stimulated the country to search for diversification in partnerships. This led to the procurement of more complex means from Western European countries, such as frigates (Vosper, UK [1970s and 1980s]), and submarines (Orion class, UK [1970s] and IKL, West Germany [1990s]). Overall, it represented a noticeable downward trend of the huge American influence, opening more space to Europe. More recently, in the late 2000s, the efforts towards autonomy produced results that remain nowadays regarding thought – such as defence documents like the END 2008 – and materiel – such as the PROSUB, a partnership with France with transfers of technology, aiming to build conventional and nuclear-powered submarines. The second part of the timeframe, as will be seen, will also address both approaches and, again, will testify, regarding thought, the increasing association between defence and development.

In terms of thought dependence, in spite of its doctrinal character, perhaps its most significant move has been the political and strategic reassessment caused by the change of perceptions that disputes have promoted. It directly affected the review of risks and opportunities, as mentioned, and consequently of ends, ways and means. As suggested, it will also have effects on the defence and naval documents during the timeframe, and, to some extent, on the BN's means configuration, analysed in the next chapter. This will help shape the main lines of Brazil's maritime strategy and its naval thinking.

With regards to the functions of navies approach (see Figure 1.5), in fact, once the focus in this section is strategy of means, the evidence presented and discussed permeates any function, with some tendency towards one or another, depending on the risk-opportunity-end focus. Generally speaking, some changes were seen from the late 1960s onwards, but these details will be more accurately addressed in section 3.2.2, where the force structure during the timeframe will be analysed.

Finally, with regards to maritime strategy perspectives, the main focus is on strategy of means, as opposed to declaratory strategy and operational strategy (all within the fourth perspective of maritime strategy, as discussed in section 1.5). This implies that it permeates two other perspectives indicated in Figure 1.5 – first and third: history, practice and thought,

and narrow and broad maritime strategies. In the case of the first perspective, the elements of history, as perceived, provided Brazil and the BN with the drive to some degree to change the suppliers of means, in order to advance its own perspectives about force structure. Therefore, it aimed to transform its practice and associated thought. The third perspective shows a relationship similar to that between the strategy of means and the functions of navies, once the narrow maritime strategy associates with the military and diplomatic sides and the broad maritime strategy also encompasses the constabulary side. As signalled, these changes will help us to understand Brazil's maritime strategy during the timeframe discussed.

2.4 Conclusion

As stated in the Objectives section in the Introduction, the main purpose of the current chapter, beginning in the period of time before the timeframe, was to identify how events in Brazil have influenced the overall risk-opportunity perceptions of the Navy and the country, discussing how they have unfolded over time. As noted, this has somewhat influenced adjustments in the trinity of ends, ways and means, which will more accurately manifest themselves in the subsequent documents and decisions to be analysed in the stages of the next chapter, both at the national and defence level, as well as the naval level.

To accomplish that purpose, three engagements between the BN and the nation were proposed: the participation of the BN in the main episodes of the nation, the Blue Amazon concept within the context of the geographic challenges faced by Brazil, and the BN's quest for autonomy. The first two engagements showed historical and geographical influence over strategic assessments that helped shape Brazilian naval thinking over time. The third presented an overview of how the naval institution has tried to cope with these challenges, especially in terms of strategy of means, therefore also affecting naval thinking.

With regards to the first engagement, the monarchy period in the nineteenth century witnessed a nation assembling its Navy firstly, with the main purpose of assuring the unity and survival of this continental country. Subsequently, the growing tension with the Southern neighbours compelled the nation to shape and employ its navy to face the challenges of the riverine scenario, but also of its long coastline. The Republic period, on the other hand, firstly impelled the Navy, at the beginning of the twentieth century, to materialise a naval strategic thinking with a naval force centred on two British-built battleships. However, there were difficulties related to making the whole naval force effective. Brazil's international naval engagement, in the First and then in the Second World War, favoured the development of a new naval mindset – especially after the latter, as a result of the U.S. partnership – heavily grounded, materially and doctrinally, in the anti-submarine capability of the warfighting spectrum. If, by the Second World War, this capability was developed to face the common enemy of Germany as part of the Axis Powers, during the Cold War the same capability was prioritised along with the role assumed by the BN amid the Western security community effort in the South Atlantic. As seen, the threat perceptions were naturally mainly directed towards adversarial states, under the logic of the military and diplomatic sides of Booth's-Grove's triangle, associated with the narrow aspect of maritime strategy of the third perspective.

As noted, an adjustment was perceived after growing disputes over marine resources, later increasingly reinforced by the changing Law of the Sea, with UNCLOS III. In Brazil's case, this process was also influenced by France, with the episode of the Lobster War, in the early 1960s. The growing importance of marine resources and the ensuing crises have led to the next two engagements of the current chapter. The first relates to the Blue Amazon concept within the context of Brazil's geographic challenges, because of the direct relationship of this concept with the richness of marine resources associated with the Brazilian jurisdictional waters (including the EEZ and the extended continental shelf). The subsequent engagement relates to the Navy's quest for autonomy, due to the material difficulties also experienced during that crisis, which reinforced a continuous mindset of achieving as much flexibility and independence as possible in terms of means acquisition/development. Such a type of engagement will be complemented in the next chapter. As seen, the episode of the Lobster War has also represented for Brazil a somewhat anticipation of the increasing importance of the broad aspect of maritime strategy and of maritime security, respectively represented by the third and fifth perspectives, and hence associated with the constabulary side of Booth's-Grove's triangle.

Regarding the second engagement, the Blue Amazon concept somewhat epitomises the sense of anticipation mentioned, helping to heighten the relevance of the constabulary role, along with the tendency mentioned towards the perspectives of a broader maritime strategy and maritime security. Within Blue Amazon's four dimensions, a richer narrative was rendered about scientific endeavours in Brazilian jurisdictional waters. Moreover, this concept added to other maritime constructs, addressing parts of Brazil's geographic challenges, like the Strategic Surroundings, to be addressed in the next chapter (section 3.1.3), the SAR maritime area, along with the great riverine lengths. The latter will offer space for the discussion of another aspect of the functions of navies approach, namely the social assistance role of the BN in the larger river basins – Amazon and Pantanal – which will also be addressed in the next chapter (sections 3.2.1 and 3.2.2).

Thus, the Blue Amazon helped to conceptualise, for strategic communication purposes, a reality that originated from the cumulative effect of marine resources' importance as strategic assets over the last decades, with the concept itself representing the thought aspect of Hattendorf's (2013) approach, within the first perspective. At the same time, it represented a gradual reshaping of Brazilian naval strategic thinking, thus reflecting a peculiar maritime strategy, to which the strategy of means would try to adapt.

Finally, the third engagement has showed, as a consequence of that growing awareness, the attempts to materialise some degree of materiel and thought independence amid the Navy's challenges. This was exacerbated by the increasing perceptions of the limitations of the U.S. Brazil partnership along with the realities of the international relations experienced in the South Atlantic, with the examples of the Lobster War and the Falklands War.

Despite the relevant contribution of the U.S. partnership to a more organised, equipped and trained BN, some diversity in the relationship with other developed countries became indispensable. This led Brazil to improve naval trade relations with these countries, boosted by its economic boom of the late 1960s and early 1970s. Beyond the anti-submarine capability – represented by the many destroyers lent to Brazil by the Americans in the post-war period – it led to means and doctrine developments, represented for instance by the tailor-made Vosper

frigates (UK), Oberon class submarines (UK) and IKL submarines (West Germany). If the total external independence was not viable, at least the trade balance between the two sides of the Atlantic permitted some developments in Brazil's shipbuilding capacity over time.

This tendency concerning the materiel approach, as noted, will be followed by the thought approach, not only represented by slight changes to doctrine, but also by the increasing association between defence and development, expressed, respectively, in the sequence of naval doctrines published before and during the timeframe, and in the first National Defence Strategy in 2008, as well as ensuing strategies – explicit or not – both to be analysed in the next chapter. Thus, as can be seen, both approaches are the result of a gradual change of risk-opportunities perceptions, which has slowly affected the ends-ways-means chain.

Moreover, while the strategy of means permeates any function of navies, it stands out as an important branch of the fourth perspective to help explain Brazil's maritime strategy during the timeframe, combined with the operational strategy and declaratory strategy, both of which will be addressed later (see sections 3.1.3 and 3.2.1). The same happens when addressing the BN through the lens of history, from the first perspective. As we will see, Brazil's efforts sought to rebalance partnerships, and to create new thought practices. The next chapter will reflect on the widening of a narrow maritime strategy, under the third perspective, moving from the almost sole focus on the military and diplomatic sides to the triad also encompassing the constabulary side.

As stated in the Introduction (chapter 1), this thesis argues that, since the BN has been assigned a wide array of tasks during the declared timeframe, a diverse mixture of concepts regarding maritime strategy is needed to explain its unique naval strategic thinking. This approach is also necessary as the basis of formulating a more comprehensive set of functions of navies. Chapter 2 has supported this argument by providing, along with some elements of the Introduction (sections 1.1 to 1.4), a significant background to the BN's most relevant engagements with its nation in order to facilitate that explanation in chapter 2. Firstly, an assessment of the historic tendencies offered the first signs of a growing variety of tasks, besides traditional ones, which helped to pave the way for the transition through the end of the Cold War into this thesis's timeframe (1985-2018). Secondly, the huge geographic challenges faced by Brazil in its maritime/riverine aspects compounded the permanent factor which, combined with the first engagement, contributed to Brazil's maritime strategy assessments during the timeframe. Finally, the way the BN sought autonomy, in terms of materiel and thought, set the basis for both structural (section 3.1) and substantial (section 3.2) perspectives, thus offering reflections on Brazil's naval strategy of means.

With the first objective completed, the elements provided – a constructed basis for an evolving assessment of the risk-opportunities-end-ways-means set – will pave the way for the second (section 3.1) and third objectives (section 3.2) in the next chapter. As noted, they will focus, respectively, on the national and defence level, and the naval level (practice and thought aspects), showing the integration between them both. In this way, the combination of these different forms of evidence and lenses will help demonstrate the gradual reshaping of the BN's configuration of means. Hence, it will detail the main lines of Brazil's maritime strategy and its naval thinking, therefore elucidating the characterisation of Brazilian naval strategic thinking.

3 Strategy and Naval Policy

Chapter 2 addressed the first research objective, identifying the evolution of risk-opportunity perceptions in the period prior to the thesis's timeframe, and paving the way for this continued assessment in the current Chapter. Thus, this Chapter will address the second and third objectives. The second objective (section 3.1) will analyse national and defence primary sources in the upper levels, beginning with the Brazilian Constitution of 1988 (section 3.1.1) and the maritime policies of 1984 and 1994 (section 3.1.2), within the first half of the timeframe (1985-1995). This will be complemented by the analysis of defence documents and complementary laws (section 3.1.3), which began to be published in the mid-1990s, but mostly in the second half of the timeframe, after the creation of the MoD. The third objective (section 3.2) in turn will address the evidence regarding naval documents, naval forces and naval publications, which were subordinate to the national and defence level. As mentioned, naval documents (section 3.2.1) – 'thought' and 'practice' approaches – will be composed of policies, strategies and doctrines. The naval forces (section 3.2.2) – 'practice' approach – will be organised in force structure (fleet, patrol, constabulary, survey or research, assistance, marines and naval aviation, with the addition of specific land-based naval organisations relevant to some core roles), missions and activities. Finally, the naval publications (section 3.2.3) – 'thought' approach – will be formed by the main thoughts of two Brazilian naval experts, Admirals Flores and Vidigal, as well as the Brazilian Maritime Journal, which will help to evaluate Brazilian naval strategic thinking at least partially. Figure 3.1 visually summarises this Chapter. The chosen section headings – structural perspective and formal expressions – suppose that the former has influenced the latter somehow. In fact, we can accept that the latter – the main focus of this thesis – has developed by being immersed in the former, without much causality. It can be further stated that this causality has been both top-down and bottom-up. Either way, the interactions between both levels will help answer the thesis's research question.

Within this context, each of the five perspectives elaborated, as well as the approaches provided by Haynes, Swartz and Duggan, Booth and Grove – as noted in section 1.5.3 – will shed light on the evidence in this Chapter, helping explain how they have composed Brazil's naval strategic thinking throughout the timeframe. As examples, the first perspective has been indicated above in the division of the naval evidence regarding 'thought' and 'practice', with the 'history' part being addressed mostly in the previous Chapter. The second perspective will inevitably provide the framework to show in Brazil's case the links between the naval level and the national and defence level, through the concepts of naval, maritime and grand strategies. The third perspective has started to show its utility in Chapter 2, with the gradual development from a narrow to a broader maritime strategy. In the current Chapter, these developments will manifest themselves in the documents analysed. Regarding the fourth perspective, the types of strategy discussed – declaratory and operational strategies and strategy of means (already initially addressed in section 2.3) – will serve as lenses to evaluate aspects of the structural perspective and formal expressions. The fifth perspective in turn – maritime strategy and maritime security – has also already been perceived in the previous Chapter, as a result of the developments mentioned with the enlargement of the maritime strategy scope.

It is expected that, by analysing and comparing the contents of the structural perspective and formal expressions, we will have the possibility to complement the analysis started in Chapter 2, assessing those aspects of the strategic chain – risks, opportunities, ends, ways and means; especially the last three aspects – in order to achieve the aim of understanding Brazilian maritime strategy in a comprehensive way.

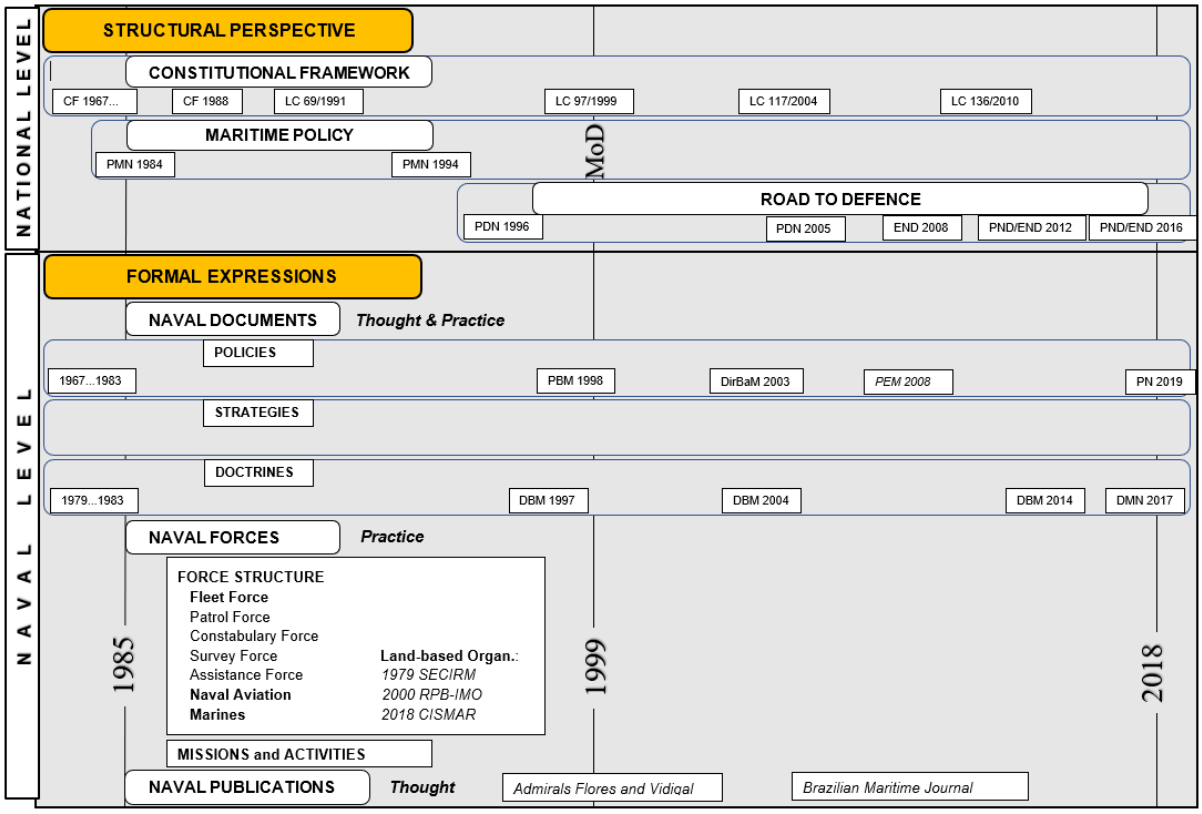


Figure 3.1 – Structural Perspective and Formal Expressions. Created by the author

3.1 Structural perspective

As suggested at the beginning of this Chapter, by analysing national and defence primary sources in the upper levels, this thesis seeks to identify structural elements that might relate to or influence the naval level, whatever the direction of causation. If, on the one hand, the Constitution and maritime policies might have affected or interacted with the naval realm throughout the timeframe, on the other, the consolidation of the structure of defence at the national level – with national defence policies and strategies and complementary laws to the constitution – only started these interactions with the naval level during the current century. In that sense, relevant conclusions might arise in comparing manifestations of Brazil's maritime strategy over the timeframe to this structural perspective. The next section will begin to examine the fundamental structure of the Constitution.

3.1.1 Constitutional framework and the Military

Given that established rules about military activities in a nation might play a significant role in its strategy, the main point of this section is to evaluate how the current Brazilian Federal Constitution (*Constituição Federal*, in Portuguese, or CF) of 1988 – the legal cornerstone for the general armed forces' employment in Brazil – has provided a basis for these activities, and, consequently, for its maritime strategy, therefore affecting its naval thinking.[53]

The current Constitution was promulgated after 21 years of military governments, which ended in 1985. Thus, it is also worth searching for significant changes compared to the previous Constitution of 1967 – promulgated during the military government, in power since 1964 – that might have affected the structure of the armed forces and/or their activities, including the navy. On the one hand, if there was no significant change, it can be argued that the change from military to civilian leadership in 1985 meant no fundamental shift in the conditions and roles of the military. On the other hand, changes in this level might have affected the military, but also other branches of the administration, which indirectly could have affected military settings in general, and naval settings in particular. One example is changes that affect foreign policy, which might influence naval policies, under the likely label of naval diplomacy. Subsequently, it is also important to present main military-related complementary laws stemming from the constitutional framework, with its changes over time being addressed in section 3.1.3, in order to see whether and how they have influenced naval roles, and therefore its strategy and thinking.

Regarding armed forces' duties, there is a slight difference between both constitutions, which can be seen as a sign of the transition between the military and ensuing civilian period. The 1967 amended text states the following:

> Article 91. The Armed Forces, essential to the execution of national security policy, are destined to the defence of the Homeland, and the assurance of the constituted powers, law and order. (Brasil. Presidência da República, 1969, No. 91)

The 1988 text, in turn, states the following:

> Article 142. The Armed Forces [...] are destined to the defence of the Homeland, to the assurance of the constitutional powers, and, by initiative of any of them, of the law and order. §1. Complementary law will establish general rules to be adopted for the organization, preparation and employment of the Armed Forces. (Brasil. Presidência da República, 1988, No. 142)

Two points need to be highlighted. Firstly, while in both Constitutions the two duties are explicit – that is, 'to defend' and 'to assure' – the 1988 text explicitly states that the armed forces would act only under the initiative of the constituted powers, understood as the executive, the legislative, and the judiciary, in order to assure law and order. It is clear that this

[53] Brazil has had seven constitutions since it gained independence in 1822: one during the Empire (1824), and six during the republican period. With regards to the latter, there was one Constitution before the First World War (1891), and there were two during the interwar period (1934 and 1937), and three during the post-war period (1946, 1967 and 1988). The current Constitution was promulgated in October 1988 under President José Sarney and Minister of the Navy Admiral Henrique Sabóia.

constitutional duty was an important point of negotiation between the military and politicians in the Constituent Assembly just before 1988. There was, however, a stalemate: the military defended the 1967 text and politicians desired change. As Castro and D'Araújo (2001) explained:

> The second non-negotiable issue for the military was the maintenance of the constitutional destination of the Armed Forces as law and order maintainers in case of internal convulsions. The final solution for the drafting of the constitutional text was given by Afonso Arinos, who suggested the inclusion of an expression that linked this mission to the convocation by one of the constitutional powers. (2001, pp.18–19)

In practical terms, as will be seen, politicians later promoted the so-called GLO (translation: guarantee of law and order) operations, for the armed forces, usually due to structural deficiencies in public security and related topics in some States of Brazil. In the case of the BN, these operations will be more related to the marines. The second point is that complementary laws (*leis complementares*, in Portuguese, or LC), as stated in the 1988 text, would regulate this and other aspects of military organisation, preparation and employment. As noted, the implications will be described in section 3.1.3.

Besides the warfighting side of Booth/Grove's triangle stated above in Articles 91 and 142, it is worth emphasising its constabulary side. While not directly related to the military, it refers to the assignments of Federal Police (*Polícia Federal*, in Portuguese) in Brazil, already addressed in the 1967 Constitution, with the aim of providing border, air and maritime policing, thus becoming responsible for law enforcement in these border areas (Brasil. Presidência da República, 1967, No. 8). This role is maintained in the 1988 text (Brasil. Presidência da República, 1988, No. 144). In this thesis, these points will be relevant because of the interaction between the maritime police and BN's activities, which will be discussed later.

Besides the military and constabulary realms, the diplomatic area in both constitutions makes clear references to how Brazil's stance should be on international projection regarding international conflicts, although the 1988 text is more precise about which principles should rule Brazil's international relations. The 1967 text states that:

> Article 7. International conflicts shall be solved via direct negotiations, arbitration and other peaceful means, along with cooperation from international organisms in which Brazil participates. Single paragraph. the war of conquest is prohibited. (Cavalcanti *et al.*, 2012, No. 7)

Meanwhile, the 1988 Constitution proclaims:

> Article 4. Federative Republic of Brazil is governed in its international relations by the following principles: […] III – self-determination of peoples; IV – non-intervention; V – equality amongst States; VI – support of peace; VII – peaceful settlement of conflicts; […]. (Brasil. Presidência da República, 1988, No. 4)

Both statements indicate that Brazil under normal conditions would not participate in coalitions. What usually happens historically, though, as will be described later on, is that it sends troops abroad for peacekeeping operations under the aegis of multilateral agencies, normally the United Nations. In this sense, the primary focus of the armed forces is defence, not intervention.

Regarding the LCs stemming from the Constitution, the first one, No. 69, was published in July 1991.[54] This and its sequence would mean the gradual adjustment of the legal framework for domestic military employment, leading to a new period of civilian government and a new constitutional fabric. In this adjustment, the LC 69/1991 employed the term 'subsidiary assignments' (*atribuições subsidiárias*, in Portuguese) (Brasil. Presidência da República, 1991, pp.1–2) which dates back to the 1960s, as will be seen in the next section, but would gradually become a constant in references to that employment in Brazil (Brasil. Presidência da República, 1991). These assignments are divided into two categories: general and particular. The former applies to all three services while the latter is particular to each one. It does not mean that such activities had not been conducted before, as the examination of naval policies and doctrines will show. Rather, it means these activities had been rearranged under a new legal framework.

The list of such assignments on this first LC was still short compared to what was to come years later, with the next set of LCs after the creation of the MoD. General assignments, for instance, were only established 'to cooperate with national development' – which recalls section 2.3 – 'and civil defence' (Brasil. Presidência da República, 1991, p. 2). Meanwhile, particular assignments for the Navy were designed:

> to orient and control merchant marine and related activities, insofar it can be of interest to national defence; to provide safety to the waterway traffic; to contribute to the formulation and conduct of national policies concerning the sea; and to implement and supervise compliance with laws and regulations at sea and inland waters. (1991, p.2)

The new set of LCs mentioned is based on the LC No. 97 of June 1999,[55] which would entirely revoke the 1991 version, and, in fact, would expand its tasks. As it was proposed with the creation of the MoD in June 1999, it will be addressed predominantly in section 3.1.3, as a manifestation of the structuring of defence. For now, suffice it to say that the LC 97/1999 and its amendments have affected, as did the creation of the MoD, the employment of the armed forces in peacetime, and therefore their structure. Moreover, it supports this thesis's choice of using the creation of MoD as the watershed moment between the first and second halves of the timeframe, so that any change of trend might be identified in this transition, possibly influencing the characterisation of Brazil's naval strategic thinking.

Thus, to sum up this section, the comparisons between the 1967 and the 1988 Constitutions with regards to the armed forces show that there were no abrupt changes at the beginning of the timeframe, when examining the initiative for the assurance of constitutional powers, as well as the general military, constabulary and diplomatic approaches.

The current Constitution encapsulates two main types of military employment: 1) constitutional destinations, with the 'defence' and the 'assurance' components, and 2) subsidiary assignments. This provides a relevant basis for developments in defence and diplomacy, law and order and constabulary actions (Federal Police), which will inform the analysis of the defence documents in the sections ahead. In that sense, the change of

[54] This LC was published under President Collor de Mello and Minister of the Navy Admiral, Mario Cesar Flores.
[55] LC No. 97 was amended by LC No. 117 of September 2004 and LC No. 136 of August 2010, as addressed later.

government partially signalled a new legal framework with the new Constitution and related LC in 1991, with more to come after 1999.

The points highlighted in this section and the ones to be developed in the following ones arguably offer support to this thesis's argument, signalling the enlargement in scope of military tasks in order to meet the other needs of society. Therefore, a diverse mix of concepts beyond the classical approaches is suitable to explain Brazil's unique kind of maritime strategy and naval strategic thinking. It remains to be seen to what extent these changes were significant in practice when working towards a broader sense of maritime strategy.

3.1.2 Maritime Policy from the Brazilian perspective

This section will address how the Brazilian perspective towards maritime policies may contribute to the understanding of Brazil's approach to maritime strategy. Firstly, it will explore the origins of the relationship of the BN with the formulation of maritime policies and with a number of other activities. Secondly, it will focus on how these documents aid the understanding of concepts such as maritime power in the Brazilian context, and therefore its connections to Brazil's maritime or naval strategy.

There were only two versions of the National Maritime Policy (*Política Marítima Nacional* – PMN, in Portuguese) document in Brazil: 1984 and 1994.[56] The formulation of policies related to the sea has usually been assigned to the navy in Brazil[57]. This has been clear at least since Decree-Law No. 200 of 1967[58] – as specified in item III – which proposed to implement a reform in the federal administration (Brasil. Presidência da República, 1967b).

> […] Paragraph 1 – It concerns the Ministry of the Navy:
> I – To propose the organization and provide the equipment and training of the Naval Forces and Naval Aviation and of the Marine Corps, including to integrate Combined or Joint Forces.
> II – To direct and undertake research and development of interest to the Navy, obeying the provisions of item V of art. 50 of this Law.
> III – To study and propose guidelines for the national maritime policy.
> Paragraph 2 – The Ministry of the Navy has also the following subsidiary assignments;
> I – To guide and control the National Merchant Marine and other related activities in matters of national security and to provide the safety of navigation, be it maritime, fluvial or lake.
> II – To exercise the naval police […]. (Brasil. Presidência da República, 1967b, No. 54)

The law highlights not only defence or maritime policy matters, but also the already cited subsidiary assignments involving merchant marine, safety of navigation and naval police. These and others were reinforced over time, as in the case of Decree-Law No. 62.860 of June

[56] The 1984 version was drafted during the last military president administration of General João Figueiredo. Admiral Maximiano da Fonseca was the Minister of the Navy. The 1994 version in turn was published well inside the first period of our timeframe, during the period of civilian governments. At the time, Mr Itamar Franco was President and Admiral Ivan da Silveira Serpa was the Minister of the Navy.

[57] Admiral Ilques states in the interview the urgency of a new version of the PMN because of the long gap in time since the 1994 version, and indicates conversations with the Ministry of Infrastructure and other agencies in order to tackle this issue (personal communication, April 1, 2019).

[58] Decree-Law No. 200 was published just after the promulgation of the 1967 Constitution.

1968 (Brasil. Presidência da República, 1968, No. 1, single paragraph). Additionally, it expanded and detailed the navy's subsidiary assignments, as follows:

> […] IV – To order and conduct research and to elaborate studies for the development of the Navy, as well as other studies for the interest of national development which are due to the Navy or requested from it;
> V – To guide and control, in the interests of National Safety of Navigation, the National Merchant Marine and other related organisations and activities, including training and professional requirements of its crew;
> VI – To promote safety of maritime, riverine and lake navigation;
> VII – To execute the military piloting and to supervise the civil piloting in what matters to the Safety of Navigation and National Security;
> VIII – To exercise naval policing, in order to control, as far as National Security is concerned, the use of the territorial sea and coastal zone, of the inland waters, of the undersea platform and marine terrain and their increments and the marginal land of ports, rivers, lagoons and canals;
> IX – To cooperate with other governmental agencies in the assurance of the constituted powers, and of law and order;
> X – To collaborate, in cases of public calamity, with the federal and state authorities, in the assistance of the affected populations and in the restoration of normality;
> XI – To participate in the national programmes of Civic Action; and
> XII – To participate in governmental programmes for socio-economic development […]. (Brasil. Presidência da República, 1968, No. 1, single paragraph)

It is clear that the navy has long been involved in maritime and other matters in Brazil, even before the civilian governments. It is also important to note the items related to 'socio-economic' and 'national development', as suggested in Chapter 2, as well as 'civic action', meaning assistance. Besides the maritime policies, another example was the National Policy for Marine Resources (*Política Nacional para os Recursos do Mar* – PNRM), to be addressed later, which was approved by the president in 1980 (Bakker, 1983, p. 103). This policy was directly related to the already mentioned CIRM, coordinated by the then Minister of the Navy from 1974. The associated legal framework – complementary laws and defence documents – as well as the naval documents assert that this involvement will continue over time. As suggested by Booth (2014) with regards to the functions of navies, the Brazilian reality – State and societal needs – has had a significant effect on this configuration, as mentioned in the previous chapters and as will be further explored through the navy's documents and structures in section 3.2.

Regarding the maritime policies, the implementation of the 1967 administrative reform in stages (Brasil. Presidência da República, 1967b, Nos. 145, 146) may have contributed to the former only being published in January 1984. Both versions presented the following purpose: 'to guide the development of maritime activities of the country, in an integrated and harmonious way, aiming for the effective, rational and thorough use of the sea and our inland waterways, in accordance with national interests' (Brasil. Presidência da República, 1984, 1994). Additionally, they identified a few 'conditioning factors'[59] and established 'objectives' as well as the 'actions to be executed' to reach these objectives (Brasil. Presidência da

[59] These factors were nearly the same for both, as they were centred on 'national strategic concept', 'guidelines for governmental actions', 'national policy for security (defence)', 'general guidelines for mobilisation', 'sectorial policies', and 'international agreements' (Brasil. Presidência da República, 1994, No. 5).

República, 1984, 1994). These actions were grouped into the subjects of international relations, waterway transportation, naval shipbuilding, research and development, marine resources and safety and security. They were assigned to various ministries, either singularly or in groups (Brasil. Presidência da República, 1984, 1994). Both policies state that interministerial or sectorial policies that involve marine activities should be governed by the PMN. For that matter, a National Maritime Committee (*Conselho Marítimo Nacional* – CoMaNa), whose main purpose was to advise the president on the achievements of the PMN, was created in March 1983. The Committee was constituted of ministries representatives and presided over by the Minister of the Navy (Brasil. Presidência da República, 1983). Notwithstanding, a relevant difference between the two versions was that this Committee was disbanded in July 1993 (Brasil. Presidência da República, 1993a), which supposedly contributed – combined with the navy's loss of ministry status in 1999 – to the PMN not being updated anymore, and, therefore, to the natural reduction of its effectiveness over time as an influential policy.

Whatever their level of effectiveness, these policies reveal two relevant points to this thesis. One regards the relationship between the navy and the variety of sea-related matters in Brazil – via ministries or not – as the cited groups of action indicate, especially over the first half of the timeframe, when the navy still had the status of ministry. It remains to be seen to what extent this level of relationship will be maintained in the second half of the timeframe (1999-2018), after the creation of the MoD. The second point refers to the use in Brazil of the concept of maritime policy itself, amongst others associated with the adjective 'maritime', such as maritime power and maritime strategy. This reveals the dichotomy between the naval and maritime domains, already mentioned in section 1.6.

The 1994 policy explicitly states the definition of maritime power (*poder marítimo*, in Portuguese), relating also its constituents, including naval power (*poder naval*):

> [Maritime Power is] the National Power component available to the nation in order to achieve its sea-connected or dependent purposes. These means [– the constituents of the Maritime Power –] are of political, economic, military and social nature and include, among others, the maritime awareness of the people and the political class, the merchant marine and the Navy, the shipbuilding industry, ports and the structure of maritime trade. The Naval Power is the military component of the Maritime Power. (Brasil. Presidência da República, 1994, No. 3)

Even before and long after the two policies in question, the maritime power definition and its constituents or elements seemingly remained the same in Brazil's case. This, for instance, was observed, respectively, in the 1972 book *Panorama do Poder Marítimo Brasileiro* (*Overview of Brazilian Maritime Power*), edited by then-Navy Captain Mario Cesar Flores (Minister of the Navy from March 1990 to October 1992) (Flores *et al*., 1972, p. 91), and in the 2014 version of the Brazilian Navy Basic Doctrine (*Doutrina Básica da Marinha*, DBM) (2014, pp. 1.1–1.2), which will be further analysed. Thus, the concept of maritime power in Brazil combines naval power – meaning its navy, with activities not always related to the use of force – with all other sea-related elements (economic, commercial, scientific, research and social, among others). In this sense, Brazil demonstrates a concept of maritime power with a clear military versus non-military dichotomy in the possibilities of the use of the sea, rather than a war versus peace dichotomy, sometimes expected when one equals maritime power to seapower, as seen in section 1.6, in the debate about the research object.

With further regards to the second point, maritime policies allow for the understanding of the relationship between the BN and the concept of maritime strategy, as well as for the naval versus maritime dichotomy in Brazil's case. A maritime strategy, on the one hand, could be taken as a natural follow-up to a maritime policy, meaning the group of actions designed to help achieve the goals established by the policy,[60] although such a document, formally speaking, does not exist. On the other hand, maritime strategy, as it has been treated in this thesis, would mean the overall activities conducted by the BN. This would involve the employment of means in certain ways – to achieve specific ends, defined by the legal framework – over the whole spectrum of conflict, between peace, crises or conflict, and taking into account risks (associated with real or latent threats) and opportunities. As the purpose of the maritime policies indicates, the difference between the two approaches of maritime strategy would be the category of actors responsible for the group of actions or activities. While the former involves all sea-related actors via the concept of maritime power, including the navy, the latter regards only the navy, via naval power, whatever the scope of its activities.

Regarding the dichotomy between the naval and maritime domains, in turn, it is worth a digression, since this affects the understanding of strategy that unfolds from naval power, either as naval or maritime strategy. It can be said that distinct nations within their specific geopolitical space and within the context of particular historical experiences might shape slightly different approaches to these terms. Therefore, it would be fair to say that there is no right or wrong in terms of the strict borders between these concepts, as they will have different nuances according to the context under analysis. What really matters to any corresponding debate is to be attentive to such nuances and their respective contexts.

It is, for instance, well known that Corbett (1854–1922) distinguished between the naval and maritime concepts, describing the former as what navies usually do, with the Royal Navy as his central example. Not surprisingly, its historical action was associated with an effort normally shared with the army, in the UK's disputes with other states, aiming to influence events on land. It was clearly greatly affected by the fact that Great Britain was an island very close to the European continent and its traditional adversaries. In this sense, Corbett's use of the term maritime, supported by evidence, is obviously more appropriate than naval, when he refers to strategy, where the naval force plays a dominant but not isolated role. This helps to explain the prevalence of the expression 'maritime strategy' in the Anglophile world, as opposed to naval strategy, both in the military realm and in academic debates.

In Brazil's context, as indicated in section 1.6, the term *naval* (naval, in English, with distinct pronunciation) has been more prevalent, as opposed to the term *marítimo* (maritime, in English). The governmental approach, with numerous responsibilities for the navy (such as the formulation of maritime policies), in addition to geographic and historical approaches, provide some explanatory power.

As discussed in this section, the governmental approach highlights the clear cut between the two types of actors: the navy as the naval power and all other non-military actors as the remainder of maritime power, with the main focus of peacetime. As the term *marítimo* encompasses and goes beyond naval power, the entrenchment of the term *naval* seemed natural for everything associated with the navy, even in non-warfighting roles. The term *naval* could

[60] In this sense, it would theoretically mean that the policy and strategy are combined in one document.

also be utilised to compare the BN to the other services – the Brazilian Army (land power) and Brazilian Air Force (air power). One reason for this comparison would be that each service had historically been a ministry, and, therefore, more isolated before the recent unification under the MoD in 1999, despite the existence of another ministry called the Armed Forces Staff (EMFA), as mentioned in section 1.3.2.

History reinforces the prevalence of the term *naval*, since Brazil's involvement in conflict, when compared to more powerful nations such as the United States, Russia, United Kingdom and France, has been lesser, as was addressed in the previous Chapter. In this sense, Brazil has promoted a predominantly defensive strategic posture in military employment in general, and in naval employment in particular.

Geographically speaking, it could be said that the huge maritime space of the South Atlantic, as opposed to the narrow English Channel, has served as a large buffer to discourage offensive movements from or towards Brazil from overseas. This entailed a distinct interaction between each navy and respective other forces. In the British case, under a more offensive context, the navy has been an instrument either for defence or to help influence life on land, supporting the army or landed troops overseas. The naval element here indicates an intermediary position, like the rod of a spear. This has arguably strengthened the British preference for the term maritime, inductively reasoned by Corbett (2004). In Brazil's case, with its presented geographic and historical characteristics, the naval force would arguably be the spearhead – the frontline, not the rod – against overseas threats. The army and the air force would mainly form a second line of defence. In other words, while the offensive strategy would assume the projection of power over land – the maritime space being the intermediary element – the defensive strategy would entail a predominance of the navy as a forefront element, not an intermediate one, opposing any sort of offensive movement. This configuration, combined with relatively low inter-service interaction would help to explain Brazil's preference for the term *naval*. This, therefore, might explain the prevalent narrative in Brazil, which uses the expression *estratégia naval* (naval strategy) over *estratégia marítima* (maritime strategy), when the actor is the navy. This is clear when Brazilian naval thinkers, such as Admiral Armando Vidigal, prefer expressions like *pensamento estratégico naval Brasileiro* (Brazilian naval strategic thinking) as opposed to *pensamento estratégico marítimo Brasileiro* (Brazilian maritime strategic thinking).

Swartz and Duggan's (2011) CNA study, for instance, mentioned in Chapter 1, examined US navy strategic and concept documents from 1970 to 2010. The authors depict the distinction between navy, naval and maritime strategy (Swartz and Duggan, 2011, p. 27). Their findings suggest that 'all include how the US Navy is/should be used'; 'Naval strategy sometimes also means "include USMC"'; 'Maritime strategy sometimes means "include USCG" ([while] Maritime industries believe they should include them too)'; and 'Maritime strategy has also meant "a type of total national strategy", as opposed to a continental strategy' (2011, p.27). Clearly the term naval was and still is regularly considered. However, in the English-speaking environment, the term maritime has seemingly predominated when it designates policy, strategy or doctrine. Regardless of the overlap between the uses of maritime and naval – supposedly defined by the degree of interaction between the navy and other forces or agents, in times of peace or conflict – the point here is that a more detailed examination of the Brazilian case is required. Thus, besides the explanation provided in section 1.6 regarding

the option in this thesis to use the expression 'Brazilian naval strategic thinking', this author also opts for the expression 'maritime strategy', and not 'naval strategy', in Brazil's case, because it is more comparable with the use of the concept in the literature addressing the case of other nations, considering the Anglophile audience.

In concluding this section, the transition in maritime policies from the military (1984) to the civilian government (1994) demonstrates, through the similarity of their contents, a general continuity, as also evidenced in the transition from the 1967 to the 1988 Constitution. Additionally, it is clear that the BN has been driving maritime policies rather than been driven by them, as it is responsible for their formulation. In this sense, they also reflect, along with other subsidiary assignments, the relationships between the navy and the many sea-related matters in Brazil. At the same time, when we further the debate about naval versus maritime concepts, it is clear that, considering the Brazilian governmental, geopolitical and historical contexts, a broader scope for maritime strategy is more realistic, especially from the mid-1980s onwards, as the maritime policies suggest. This is the case, regardless of the nuances of or preference for the naval and maritime concepts, thus reinforcing the gradual transition indicated in the previous Chapter from a narrower to a broader maritime strategy, as defined in the third perspective. Considering the first half of the timeframe, the comparison between these elements at the national level and the naval level, which will be analysed in section 3.2, will arguably demonstrate this characterisation.

The next section will demonstrate the creation and gradual strengthening of the MoD, and the consolidation of those subsidiary assignments, as previously suggested, along with the unprecedented defence documents, around the second half of the timeframe. As in the case of the constitutional framework and the maritime policies, the section will analyse whether the navy has been more a driver of rather than driven by those documents, and how that interaction has played a role in Brazil's maritime strategy.

3.1.3 Road to Defence

As previously indicated, textually and visually, in Figure 3.1, the objective of this section is, firstly, to complement the national level, which is reliant to a certain degree on the naval level below. While the constitutional framework and the maritime policies have provided some basis for influence since the beginning of the timeframe, the defence documents and complementary laws to be addressed in this section, from around the turn of the century, are naturally more directly associated with the armed forces themselves. This will enable an understanding of the links between the main themes of these documents and the manifestations of Brazil's maritime strategy.

The unprecedented defence documents are the national defence policies and strategies. The first two policies were published in 1996 and 2005 as *Política de Defesa Nacional* (PDN), the first strategy in 2008 as *Estratégia Nacional de Defesa* (END), and, finally, both together, as PND (*Política Nacional de Defesa*; PDN was renamed as PND) and END, every four years,

starting in 2012 and 2016.[61] As for complementary laws, the reference is LC No. 97 of 1999 – foundational to the creation of the MoD – with its two relevant modifications, LC No. 117 of 2004 and No. 136 of 2010.

National defence policies

Firstly, regarding the defence documents, it is worth considering part of the context that led to the first national defence policy, PDN 1996, since it directly involves the BN and its operational capacity at the turn of the century. President Cardoso was the fourth civilian president from the beginning of the timeframe.[62] When elected at the end of 1994, he invited the leaders of the military – Admiral Mauro Cesar, General Zenildo and Brigadier Gandra – to assume the correspondent ministries (Castro and D'Araujo, 2001, p. 37). Although the creation of the MoD occurred only in 1999, Cardoso's political decision to create it was taken in the middle of 1997. In this sense, as mentioned, the PDN 1996 seemed a stepping stone in that direction.[63]

At that time, the appointed Ministry of the Navy, Admiral Mauro Cesar, declared how crucial it was for the navy to regain its right to operate fixed-wing aircraft (Castro and D'Araujo, 2001, p. 285). Fixed-wing aircraft had been prohibited since 1965, at the hands of the first president of the military government, General Castelo Branco, who had been convinced of this decision by the then Ministry of Aeronautics in a bureaucratic dispute with the navy (Alsina Jr., 2003). Brazil then commissioned its first aircraft carrier, *Minas Gerais*, former HMS Vengeance, in 1960. Thus, after 1965, the Navy was allowed to operate only helicopters on its aircraft carrier (Brasil. Presidência da República, 1965). In fact, since 1994, at the end of President Itamar's administration, when Admiral Serpa was minister, the navy had been sending pilots to Argentina and Uruguay in small numbers to be trained as fixed-wing pilots, even before acquiring its new aircraft (Castro and D'Araujo, 2001, p. 284). The navy was long convinced of the importance of having a balanced fleet. Thus, the lack of fixed-wing aviation capability was deemed a crucial gap that needed to be resolved (Alsina Jr., 2003).[64]

When Admiral Mauro Cesar took office in 1995, he argued that he tried to address the issue with the then-Minister of Aeronautics, Brigadier Gandra, and, afterwards, his successor, Brigadier Lôbo, without success (Castro and D'Araujo, 2001, pp. 285–286). Therefore, he decided to draft an explanatory memorandum to discuss with the president, who took around

[61] The Defence White Paper (*Livro Branco de Defesa Nacional*, LBDN, in Portuguese) is also part of this four-year cycle of defence documents. For the purposes of this thesis, it will not be addressed, since it usually summarises the respective policy and strategy.

[62] Cardoso's first term was from January 1995 to January 1999. His second term lasted until January 2003. The first three civilian presidents were: Sarney (March 1985 – March 1990), Collor (March 1990 – December 1992), and Itamar (December 1992 – January 1995). The respective three Ministers of the Navy were: Admirals Sabóia (March 1985 – March 1990), Flores (March 1990 – October 1992), and Serpa (October 1992 – January 1995).

[63] Admiral Mauro Cesar described that, after the conversations with President Cardoso and his decision to effectively create the MoD, he created around 12 working groups in the Navy led by admirals to discuss several topics for its organisation. He argues that the Navy organised around 80% of the work needed to create the MoD (personal communication, March 26, 2019).

[64] Admiral Guimarães Carvalho recalled that *Minas Gerais* and the aircraft of the Air Force that operated with it were in the limit of their life span. In this sense Brazilian Air Force cleared indicated that it would not invest in new aircraft to operate with the BN (personal communication, March 29, 2019).

eight months for his final approval. It is worth noting that Brigadier Lôbo – in an interview in 1999 – pointed to the fact that PDN 1996 was issued, at least partially, to address the dispute between the air force and the navy, ultimately providing the basis for the latter to regain its right to operate fixed-wing aircraft:

> We have always had in mind the need for air support for the Navy. But there is a slightly different approach between Aeronautics and the Navy. An approach that, as I told the President, needed to be addressed through higher-level guidance. The Navy had a military planning that did not seem to us in tune with national defence policy. In fact, each force had its own 'national defence policy', and that was not good. As a result, the work that culminated in 1996 with the approval of the National Defence Policy by the President of the Republic has begun. It was an attempt to put some common ground on the process. (Castro and D'Araujo, 2001, p. 241)

Admiral Mauro Cesar, in an interview with the author, noted that PDN 1996 really had the role of legitimising the president's decision to agree to the navy's proposal regarding fixed-wing aircraft (personal communication, March 26, 2019), [65] converging with Brigadier Lôbo's assessment. [66]

The national defence policies and strategies from 1996 onwards fall at once into the category of declaratory documents, but their main link to any maritime strategy would be via the second perspective presented in section 1.5, since it shows the possible connections between naval, maritime and grand strategies. The point of interest, then, will be whether their significant themes will be significant enough to underpin, or represent a reflection of Brazil's maritime strategy.

Starting with the national defence policies (PDN 1996 and 2005, and PND 2012 and 2016), they have usually structured their themes in three main blocks: an environmental assessment (national, regional and/or international); a set of defence objectives (ends); and strategic guidance and guidelines (except for 2012 and 2016) (ways). As PDN 1996 and 2005 were not accompanied by national defence strategies, these strategic guidelines worked as substitutes for actions that would otherwise have been presented. Under these three main blocks, the themes that follow provide some possible links, to a greater or lesser extent, to naval thought and practice (naval documents, forces and publications).

Regarding the environmental assessment, although PDN 1996 is more superficial, it sets important basic premisses that underpin a range of the navy's activities. In the international arena it describes the consequences of the end of the Cold War and Brazil's focus on promoting 'integration and approximation' amongst the countries of South America, highlighting that, to Brazil, 'the conception of regional space goes beyond the South American continental mass and includes the South Atlantic' (Brasil. Presidência da República, 1996, pp.3–5). This in turn reinforces the importance of the navy's ability to adequately operate all over this maritime space. This ability will include actions of naval diplomacy, notably contributing to cooperation

[65] Admiral Leal Ferreira also notes this episode, recalling being an Officer of Admiral Mauro Cesar's staff and having worked in the subsidies from the Navy to this PDN (personal communication, March 21, 2019).

[66] Admiral Mauro Cesar himself had served in NAeL Minas Gerais and experienced, as he said, despite the excellence of Air Force pilots, how important it was for the BN to own its own fixed-wing aircraft manned by navy aviators (personal communication, March 26, 2019). He considers this achievement one of his most valuable ones for the Navy during his tenure (personal communication, March 26, 2019).

with Portuguese-speaking African countries (under the aegis of the Community of Portuguese Speaking Countries, CPLP, in Portuguese) and the consolidation of the Zone of Peace and Cooperation of the South Atlantic (ZPCSA) forum (Brasil. Presidência da República, 1996, p.6). At the same time, that assessment includes risks of regional conflicts and instabilities produced by international crime and non-state groups (1996, p.6), which prompted the growing participation of the armed forces, particularly the navy, in constabulary actions, underpinned by the maritime security concept, as defined in our fifth perspective.

PDN 2005 goes deeper into the environmental assessment, offering the subcategories of 'International Environment', 'Regional Environment and Strategic Surroundings' and 'Brazil' (Brasil. Ministério da Defesa, 2005). Similar to its 1996 version, PDN 2005 sets the importance of regional integration in order to reduce the probability of conflicts, thus reinforcing the suitability of naval diplomacy activities (2005, p.3). The novelty relates to the concepts of Strategic Surroundings and Blue Amazon, as presented in section 2.2 (2005, pp.2–3), both of which would be adopted and used in later defence documents and elsewhere. In 2005, the former was coined, expanding the 1996 regional space concept as something 'that goes beyond the mass of the subcontinent and include[s] the projection through the South Atlantic border and [includes also] the neighbouring countries of Africa' (2005, p.3). In PND 2012 and 2016, Antarctica was also added to this concept (Brasil. Ministério da Defesa, 2012b, p.21, 2016, p.12). Although Antarctica is not mentioned within the strategic surrounding area in PDN 2005, it is stated in this document as a 'guideline' that Brazil should actively adhere to as part of its decision-making process (Brasil. Ministério da Defesa, 2005, p.7). This converges with the activities the BN has been undertaking since 1982, after Brazil's adherence to the Antarctica Treaty in 1975, including the establishment of Brazil's base there in 1984 (Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2018).

Although the subjects PND 2012 elaborates on regarding the environmental assessment are similar to those examined in 2005, it goes even further in detailing this assessment. It, for instance, reinforces the importance of cooperation to build stability in its strategic surroundings via multinational for a (Brasil. Ministério da Defesa, 2012b, pp.21–22), setting the basis again for increasing naval diplomacy with naval exercises such as the biannual IBSAMAR, between Brazil, South Africa and India, which presented its first edition in 2008 and its last in 2018 (Oliveira, 2015, p.104; Marinha do Brasil, 2018d). PND 2016, in turn, simplifies its text in its environmental assessment, but the themes more consequential to Brazil's maritime strategy are those already addressed in the previous versions (Brasil. Ministério da Defesa, 2016, pp.11–19).

The generic aspects of the defence objectives stated in PDN 1996 and 2005[67] (seven and six in total, respectively), such as 'guarantee of sovereignty', 'contribution to the maintenance of international peace and security' and 'preservation of cohesion and unity of the

[67] PDN 1996 objectives are a. guarantee of sovereignty, with preservation of territorial integrity, heritage and national interests; b. ensuring the rule of law and democratic institutions; c. preservation of cohesion and unity of the Nation; d. safeguarding of Brazilian people, assets and resources abroad; e. achievement and maintenance of the Brazilian interests abroad; f. projection of Brazil in the concert of the nations and its greater insertion in the international decision-making process; and g. contribution to the maintenance of international peace and security (Brasil. Presidência da República, 1996, p.7). PDN 2005's list of objectives offers little change. It only adds the 'promotion of regional stability' and withdraws 'ensuring the rule of law and democratic institutions' (Brasil. Ministério da Defesa, 2005, p.4).

Nation' naturally encompass many possible ensuing actions over the whole spectrum of the BN's activities, as expressed in the functions of navies approach. The defence objectives in PND 2012 and 2016, in turn, are based on the previous ones, with the addition of items related to the 'preparedness of the armed forces', 'raising of defence awareness in society', 'developing defence industry to seek more technology autonomy', 'formulating planning in terms of capabilities', and 'promoting development of logistic and mobilisation' (Brasil. Ministério da Defesa, 2012b, pp.29–30, 2016, pp.24–25). These objectives would increasingly improve the basis for the consolidation of a strategy of means, as addressed in section 2.3.

The strategic guidance and guidelines were only part of PDN 1996 and 2005, as noted, while, with the growing maturity of the MoD, the subsequent PND (2012 and 2016) started to be accompanied by their respective END. While PDN 1996 is more superficial than 2005 (27 versus 48 topics), both address a preventive approach to national defence with diplomatic action. The topics addressed in both PDNs, which would come to underpin the naval force's actions to varying degrees, involve, among others, Brazil and defence postures towards international security and in the domestic arena; areas of priority for presence or protection; capabilities to be developed; and international exchange and cooperation (Brasil. Presidência da República, 1996, pp.7–11; Brasil. Ministério da Defesa, 2005, pp.5–6). Postures in international security refer to participation in peacekeeping operations and humanitarian actions, while postures in the domestic arena refer to the subsidiary assignments and assurance of law and order, as previously mentioned (1996, pp.9–11; 2005, pp.6–7). The areas of priority refer to a diversity of actions to be undertaken in the South Atlantic, Brazilian Amazon, Antarctica, sea lines of communication of interest, and Brazilian jurisdictional waters, which is the sum of the Blue Amazon with inland waterways (1996, pp.9–11; 2005, pp.6–7). The topic of capabilities to be developed comprises scientific and technological development and the improvement of production capacity favouring the development of the defence industry (1996, pp.9–11; 2005, pp.6–7). Finally, the topic of international exchange and cooperation relates to the armed forces of friendly nations, including South American and West African countries (1996, pp.4–5; 2005, pp.6–7). These strategic guidelines will, as noted, either prompt new actions or align or reinforce actions already being accomplished – traditionally or not – by the BN.

It is important to note, though, that little or no mention is made of two systematic activities carried out by navy ships – social assistance traditionally provided and support to marine scientific research,[68] which are associated with armed forces' general subsidiary assignment 'to cooperate with national development […]' (Brasil. Presidência da República, 1991, p.6). Moreover, no mention is made in the four PDN/PND documents about Maritime Authority, which relates to the BN's particular subsidiary assignments (Brasil. Presidência da República, 1999, p.6). Both will be seen in the 'Complementary Laws' section, and were certainly not mentioned for the priority given to more defence-related subjects.

In conclusion, this sequence of national defence policies shows a gradual evolution along with the simultaneous maturing of the Ministry of Defence itself. Thus, it is natural that

[68] Both are associated with general subsidiary assignment 'to cooperate with national development and civil defence' (Brasil. Presidência da República, 1991, p.2, 1999, p.5), which will be seen in the 'Complementary Laws' section.

many topics addressed in these policies reflect to a greater extent the already existent reality of the BN's activities. This will become clearer in the following sections through a chronological comparison between these and the next defence documents and naval documents, such as doctrines – with versions from 1997, 2004, 2014 and 2019. The benefit these documents arguably provide is that they consolidate a strategic alignment between the naval level activities and defence documents at the highest level, which in turn provides a more cohesive discourse for society as a whole, thus consolidating identity within the BN.

National defence strategies

The national defence strategies (END), as noted, began to be published from 2008,[69] with new versions in 2012 and 2016[70] – the former with no policy attached, thus only drawing on the backdrop of PDN 2005, as opposed to the latter two. The 2012 version keeps the structure of 2008. However, the 2016 version shows a much simpler structure, reflecting the correspondent defence policy. END 2008 and 2012 were divided into two sections: 'System Formulation' and 'Implementation Measures', with a variety of topics (Brasil. Ministério da Defesa, 2008, p.1, 2012b, pp.4–5). The 2016 version structures itself in a 'Strategic Conception of Defence', the 'Foundations' – 'national power', 'diplomacy actions', and 'defence sector' – and 'Strategies and Strategic Actions for Defence' (Brasil. Ministério da Defesa, 2016, p.3). The content of END 2008 and END 2012 is nearly the same. END 2016 also addresses all aspects of the BN addressed in the earlier strategies in a simpler way, with small adjustments and updates. The most relevant changes will be discussed in this section.

The subject of the relationship between defence and development, so often treated as the backbone of strategy of means in Brazil, which was partially addressed in the previous Chapter, is part of the three defence strategy versions. The opening words in END 2008 could not be more explicit: 'defence national strategy is inseparable from development national strategy. The latter motivates the former. The former provides a shield for the latter. Each one reinforces the reasons of the other' (Brasil. Ministério da Defesa, 2008, p.2). Notwithstanding, PND 2016 and its associated END adds the diplomatic element to this defence-development dichotomy. It argues that 'peace and stability in international relations require integrated and coordinated actions' from three spheres:

[69] At this point, Mr Lula was still president, having as Ministers of Defence, Mr Waldir Pires, from March 2006 to June 2007, followed by Mr Nelson Jobim, from June 2007 to December 2010. Jobim specifically seems to have become entrenched in his position, especially after the publication of the first END on 18 December 2008. In fact, Jobim has been the longest-serving Minister of Defence thus far (September 2019), serving for about three years and six months in Lula's administration and around seven months in Dilma's administration, totalling about four years and one month. Only Jobim and the diplomat Celso Amorim have lasted more than two years as Ministers of Defence since the creation of the MoD in 1999, the latter having been the sole Minister of Foreign Affairs during the eight-year Lula administration and the Minister of Defence under Dilma after Jobim, for three years and five months.

[70] Concerning the political context, the 2012 defence documents were produced under the presidency of Dilma Rousseff (January 2011 – August 2016), while the 2016 documents – approved by Congress only in December of 2018 – were created under President Temer's administration. Both the Ministry of Defence and the Ministry of Foreign Affairs were involved in their creation, respectively Mr Celso Amorim (August 2011 – January 2015), successor of Mr Jobim, and Mr Antonio Patriota (January 2011 – August 2013) in 2012, and Mr Raul Jungmann (August 2016 – February 2018) and Mr José Serra (May 2016 – February 2017) in 2016.

> Development, for the reduction of structural deficiencies of a nation, [which are] nurseries for the emergence of threats to sovereignty and social welfare; Diplomacy, for the combination of conflicting interests of countries; and Defence, for deterrence or confrontation of hostile actions. (Brasil. Ministério da Defesa, 2016, p.20)

Although the content does not change much, this addition reinforces the need for a wider integration of defence beyond development, however obvious it might be, which also reinforces the BN's efforts in terms of naval diplomacy via cooperation with other navies. As will be seen, this relationship between defence and development – and now diplomacy – has always been present, to a greater or lesser degree, in naval policies. In the context of defence documents, it is relevant to note the experience of Admiral Moura Neto (Commander of the Navy from 2007 to 2015) in saying that Celso Amorim, a professional diplomat, Minister of Defence of that period, confessed that it was necessary for him to become Minister of Defence to acknowledge the importance of the defence diplomacy, which shows at that time a tendency of greater integration between civilian and military (personal communication, March 27, 2019).

Among the guidelines for the BN in END 2008, the following are highlighted:

– 'to develop the capabilities to monitor and control […] the Brazilian jurisdictional waters', using maritime surveillance technologies in the national domain (Brasil. Ministério da Defesa, 2008, p.4);

– 'to strengthen [..] sectors of strategic importance: [...] nuclear' […] – in particular, Brazil should 'carry out, among other initiatives that require technological independence in the matter of nuclear energy, the project of the submarine of nuclear propulsion' (2008, p.5);

– 'to reposition the headcount of the three Armed Forces'; in that matter, the Navy 'must be more present in the region of the Amazon river's estuary and the Amazon and Paraguay–Parana river basins' (2008, p.6);

– 'to structure the strategic potential on capabilities […] (2008, p.8);

– 'to prepare [...] to the accomplishment of missions of assurance of law and order, under the Federal Constitution terms' (2008, p.9);

– 'to prepare [...] to assume increasing responsibilities in peacekeeping operations […], as strengthening the system of collective security is beneficial to world peace and national defence' (2008, p.9);

– 'to expand the capacity to meet international search and rescue commitments […] in the areas for which Brazil is responsible […] (2008, p.9); and

– 'to enable the national defence materiel industry to gain autonomy in defence technologies' (2008, p.10).

In END 2012 and 2016, the guidelines for the BN are roughly the same, with the former highlighting the 'integration of South America' (Brasil. Ministério da Defesa, 2012b, pp.58–59, 2016, p.64).

In the case of END 2008, it establishes a hierarchy among what it refers to as 'strategic tasks' – what the navy doctrinally has been calling 'Naval Power basic tasks' – which include 'sea denial', 'sea control', and 'power projection' (Brasil. Ministério da Defesa, 2008, p.12). Although this puts 'sea denial' at the top of the list of priorities, it claims that the main aim for the navy was to become gradually 'a balanced Force', integrating its submarine, surface and aerial components (2008, p.12). The stated strategic objectives that these tasks should address,

with none of these being prioritised, are listed below. They will serve as drivers for the BN force to be capable of conducting the basic tasks mentioned above:

> (a) proactive defence of oil platforms;
> (b) proactive defence of naval and port facilities, archipelagos and oceanic islands in Brazilian jurisdictional waters;
> (c) readiness to respond to any threat, by State or by non-conventional or criminal forces, towards commercial shipping lanes;
> (d) ability to participate in international peacekeeping operations, outside the territory and Brazilian jurisdictional waters, under the aegis of the United Nations or multilateral organizations in the region. (Brasil. Ministério da Defesa, 2008, p.12)

It is possible to infer from the guidelines and the strategic objectives above the association between the areas of operation mentioned with the objectives to be protected, the basic tasks and capabilities (associated with a strategy of means). This kind of association is present in all strategy versions.

Expanding the relationship between areas of operations, basic tasks and means, END 2008 establishes that the main focus for sea control should be two areas of maritime access to Brazil: the strip going from the city of Santos (State of São Paulo) to the city of Vitória (State of Espírito Santo) and the area near the Amazon estuary (Brasil. Ministério da Defesa, 2008, p.12). It also establishes that for the dual focus on maritime areas (including sea lines of communication) and internal waterways, the proper ships should encompass both larger and smaller sizes (2008, p.13). For the former, the navy must give special attention to 'projects and building of multipurpose ships', including 'conventional aircraft carriers' (2008, p.13). Its ships, then, would include 'combatant, transport and patrol', as well as 'oceanic, littoral and riverine' vessels (2008, p.13).

When the strategy addresses the topic of the surface naval force, it emphasises the importance of a naval aviation integrated with the air force, aiming for air superiority in case of armed conflicts (Brasil. Ministério da Defesa, 2008, p.13). As for the sea denial task, the strategy states that Brazil will have a submarine naval force with conventional and nuclear-powered submarines, to 'maintain and develop its capacity to design and manufacture both conventional and nuclear propulsion submarines' (2008, p.13).

Regarding power projection, the marines should be ready to act for the protection of 'naval and port facilities, archipelagos and oceanic islands in Brazilian jurisdictional waters' and in 'international peacekeeping operations and humanitarian operations' (Brasil. Ministério da Defesa, 2008, p.13). In the riverine scenario, they will also be employed 'to assure and control the banks during riverine operations' (2008, p.13). The strategy states that the marine corps will be consolidated as 'the force of expeditionary character par excellence' (2008, p.13), which will be addressed in section 3.2.2.

Particular mention is made of the importance of developing the capabilities 'to execute surveillance of the sea surface from the space' and 'to act in network with land and air forces' (Brasil. Ministério da Defesa, 2008, p.13), which touches on strategic programmes such as the Blue Amazon Management System (*Sistema de Gerenciamento da Amazônia Azul*, SisGAAz) (During, 2014).

When it addresses naval force and strategy as a whole, the END reinforces the idea that incorporating submarine, surface and air components would 'enhance the flexibility with which

the prime objective of the maritime security strategy is safeguarded: deterrence with sea denial to the enemy approaching Brazil from the sea' (Brasil. Ministério da Defesa, 2008, p.14). As will be seen, one of the implications of these strategic and operational considerations is the consolidation of the ensuing procurement programmes proposal, which came to be known as 'Strategic Projects' or 'Strategic Programmes', part of a broader Defence Equipment and Articulation Plan (*Plano de Articulação e Equipamento da Defesa*, PAED) (Brasil. Ministério da Defesa, 2018). As can be seen, these considerations about areas of operations, basic tasks and means indicate echoes of past events, addressed in the previous Chapter.

The END 2008 also assigns to each force a strategic sector. While the army is designated the cyber sector and the air force the spatial sector, the navy is given the nuclear sector (Brasil. Ministério da Defesa, 2008, pp.24–25), since this Force started a nuclear programme in 1979 (Centro Tecológico da Marinha em São Paulo - CTMSP, 2018). Nuclear entrepreneurship in Brazil is an example of the navy's relationship with scientists associated with furthering the development of a specific scientific niche. Thus, it shows a natural follow-up from the development and defence dichotomy, stated at the beginning of the END 2008, and also expressed in the topic of 'Reorganisation of national industry for defence materiel: independent technological development' (2008, pp.26–28), an evident concern of the armed forces in general and the navy in particular. In the 2012 document, these parameters regarding the navy remained largely the same. In this sense, a significant change in the 2012 document – one that has the power to affect military procurement as a whole – is made to the 2008 'national industry for defence materiel', which in 2012 is called the Defence Industrial Base (*Base Industrial de Defesa*, BID, in Portuguese) (Brasil. Ministério da Defesa, 2012b, pp.99, 145). The developments in the organisation of the MoD and in the legal framework – Law No. 12,598, of 22 March 2012 – include the assertions that the BID is 'intended to determine special rules for the procurement, contracting and development of defence products and systems, and provide for incentive rules for the strategic area of Defence' (2012b, p.100). That would have a relevant effect on the strategy of means of the armed forces in general, and of the navy in particular.

Among the changes seen in the END 2016, the terms exclusive economic zone and continental shelf are for the first time cited together in a national defence strategy (Brasil. Ministério da Defesa, 2016, p.34). Only the continental shelf was cited in the END 2012, demonstrating the growing weight of maritime spaces in defence documents at the declaratory level over this second period of the timeframe.

While END 2016 addresses all aspects of the BN treated in the previous strategies, it is worth emphasising three of them, because they summarise operational domains, types of means and all kinds of activities of the BN, except for those related to social assistance and marine scientific research along with the Brazilian scientific community, which will be addressed in section 3.2. These aspects include the need to tackle illicit acts at sea in the jurisdictional waters as well as provide security in the sea lines of communication of national interest (Brasil. Ministério da Defesa, 2016, p.43); employment of the naval power in a large spectrum of activities, from diplomacy actions and limited employment of force up to naval warfare operations (2016, p.43); and ships needing to be ready as combatants, transport and patrol, in oceanic, littoral and riverine scenarios (2016, p.46). Attention is also paid to increased presence in the river basins of the Amazon and the Paraguay-Parana system.

In complement to the defence policies, developed from 1996, these defence strategies, from 2008 onwards, are well within the second half of the timeframe. This superficially demonstrates the gradual consolidation of the main topics regarding areas of operation, objectives to be protected, capabilities to be developed and the strategy of means needed to support them. As for the BN, the multitude of variants concerning each of these topics aligns with perspectives on maritime strategy in different forms. It goes from the second perspective, where the national strategy cited can be associated with a grand strategy in its first moves, to the third and fifth perspectives, where the broadening of maritime strategy scope encompasses the reality of tackling illicit acts at sea, underpinned by the maritime security concept. From there, it moves on to the fourth perspective, where these declaratory documents at the defence level connect also to mentioned aspects of the strategy of means – like PAED, SisGAAz and nuclear development – and to basic tasks linked to operational strategies.

The interviews with the naval authorities provided relevant comments on these national defence policies and strategies. Admiral Leal Ferreira, for instance, noted that, during his tenure, PND and END offered an important support in defending the strategic programmes cited above facing governmental institutions (personal communication, March 21, 2019). Nonetheless, he laments that he did not observe in some stakeholders the ability to provoke a more profound discussion about policies and strategies at that moment (personal communication, March 21, 2019). Admiral Moura Neto, in turn, praises the high level of these documents, in which the importance of the South Atlantic and Amazon are finally consolidated, influencing the PEM (Navy Strategic Plan) and helping to reinforce in this way the justification for strategic programmes like the PROSUB, which considers both conventional and nuclear-powered submarines (personal communication, March 27, 2019). Admiral Moura Neto also highlighted his perception as Commander that the BN, despite not being a powerful navy, earned much of its respect because of its niches of technology, like the nuclear expertise related to the PROSUB, and its resilience in pursuing it (personal communication, March 27, 2019).

Admiral Ilques converges to the comments above considering that the South Atlantic complements not only the Blue Amazon concept (also consolidated in these documents), but also the Search and Rescue maritime area, at the same time, stating degrees of importance with the South Atlantic: the closer to the Blue Amazon area, the higher the strategic relevance (personal communication, April 1, 2019). Admiral Guimarães Carvalho also noted that the South Atlantic and the Blue Amazon concepts complement each other (personal communication, March 29, 2019). The Blue Amazon, according to him, would be our last trench in defence or our springboard to further actions depending on the perspective (personal communication, March 29, 2019). He also stated that, however difficult to measure how these documents helped, for instance, the Navy to obtain the resources to finish the construction of means such as corvette Barroso and submarine Tikuna, they somehow had a positive influence on it (personal communication, March 29, 2019). In conclusion, it is clear that, after the more specific 1996 and 2005 PND, a virtuous circle began with the sequence of 2008, 2012 and 2016 PND and END, adding value to support military actions in terms of strategy of means, and showing the importance of declaratory strategies in Brazil's case.

The complementary laws in the next section will provide the legal framework which will complement the defence basis above with also domestic employment of the armed forces, particularly the BN in this thesis's case.

Complementary laws

The three complementary laws that form the basis of the Brazilian armed forces' employment, among other topics, are the LC No. 97 of 9 June 1999,[71] with added modifications from LCs No. 117 of 2 September 2004 and No. 136 of 25 August 2010. The former is, conceptually, the main legal device for the implementation of the MoD on 10 June 1999, providing for 'the general rules for the organization, preparation and employment of the Armed Forces' (Brasil. Presidência da República, 1999, p.1). While these three LC would bring a group of modifications to the previous one, the LC 69/1991, some topics showed no distinction, notably requirements on the level of preparedness. Thus, there was a restatement of the importance of the 'search for increasing national autonomy through continuous nationalisation of their [– Armed Forces' –] means', 'including research and development and the strengthening of national industry' (Brasil. Presidência da República, 1991, p.2, 1999, p.4). Indeed, this is a recurring topic at the naval level, as seen, and now at the defence levels in Brazil. On the other hand, in the topic of employment, while the LC 69/1991 addresses the subject of the use of armed forces in the 'assurance of constitutional powers and of law and order' (related to the acronym GLO), the increasingly real use of armed forces over the years for this constitutional destination prompted modifications to the LC 97/1999, with the LC 117/2004 detailing the procedures of GLO and other legislative regulations.

Another topic present in both LCs 69/1991 and 97/1999 regarding a general subsidiary assignment – i.e. involving all three armed forces – was 'to cooperate with national development and civil defence' (1991, p.2, 1999, p.5), which reflects a practice in place for a long time, as will also be seen in naval policies (section 3.2). As for 'particular subsidiary assignments' – i.e. related to each force – the LC 97/1999 maintained as the BN's responsibilities, with further additions in 2004, nearly the same list as that of 1991, as seen in section 3.1.1. Specifically, it referred to the Merchant Navy, safety of waterway navigation, formulation of sea-related national policies, and enforcing sea and inland water-related laws and regulations (1999, p.6). The addition made to the latter of '[...] in coordination with other agencies of the federal, state or executive branch, when necessary, due to specific competencies' (1999, p.6), opened more space for inter-agency cooperation regarding those domestic purposes[72]. The LC 97/1999 also formalised the status of the now Commander of the Navy as Maritime Authority regarding all the BN's responsibilities cited above and others to come (1999, p.6). For instance, a significant alteration to the LC 97/1999 made by LC 117/2004 was the addition of a fifth 'particular subsidiary assignment':

[71] The LC No. 117/2004 – as well as the PDN 2005 – were published in the government of President Lula, initiated on 1 January 2003. The former was issued with the diplomat José Viegas Filho as Minister of Defence (January 2003 – November 2004) and the latter with Mr. José Alencar (November 2004 – March 2006); two out of four Ministers of Defence Lula appointed during his two-term administration (January 2003 – January 2007 – January 2011). As for the navy leadership, Admiral Mauro Cesar handed the Ministry to Admiral Chagasteles in January 1999, who in turn handed the position as Commander of the Navy to Admiral Guimarães Carvalho in January 2003, who was in the post until March 2007; thus, he was Commander when both documents were issued.

[72] Admiral Ilques stressed that current threats, added to the classical ones, have pushed Brazilian Armed Forces, not least the Navy, towards more intensive interaction with other state agencies, like Federal Police, IBAMA and others. Thus, inter-agency operations are nowadays a reality (personal communication, April 1, 2019).

> […] to cooperate with federal agencies, when necessary, in the repression of crimes of national or international repercussion, regarding the use of the sea, inland waters and port areas, in the form of logistical support, intelligence, communications and education. (2004, p.2)

These modifications in the LC 97/1999 show how the so-called subsidiary assignments were included within the duties of the navy in particular, and armed forces in general. However, although some of these duties had been traditionally conducted by the Navy by then, they tended to grow from these moments onwards during the civilian governments. Moreover, the establishment of the Maritime Authority at this legal level also shows the strengthening of maritime security activities within the BN at this moment of transition to the second half of our timeframe.

This tendency is highlighted by Admiral Leal Ferreira in his interview with the author:

> It would be more glamorous to be only a warfighting navy, but the nation needs our efforts to do many things. They pay our taxes, and so they demand us to conduct many other activities, even in quieter periods of the country. Therefore our navy really is multipurpose. (personal communication, March 21, 2019).

While the LC 117/2004 established GLO procedures and new subsidiary assignments, the LC 136/2010[73] addressed the creation of the Armed Forces Joint Staff,[74] which replaced the Defence Staff, and adjusted some of the responsibilities of the Minister of Defence. However, it also added a significant general subsidiary assignment for the armed forces, which was already a responsibility of the army since the LC 117/2004 (Brasil. Ministério da Defesa, 2010, p.1):

> Art. 16-A [...] to act by means of preventive and repressive actions in the land border strip, at sea and inland waters [...] against cross–border and environmental crimes, isolated or in coordination with other organisations of the Executive Branch, executing, among others, the actions of:
> a) patrolling;
> b) check of people, land vehicles, vessels and aircraft; and
> c) arrests in flagrante delicto. (2004, p.2)

In practice, it meant increasing the responsibilities of the armed forces towards policing their areas of operation – in this case, more specifically, the BN and the army – isolated or not, giving them more power to act as constabulary forces. Thus, those elements certainly influenced Brazil's way of thinking of the employment of its armed forces, and more

[73] The LC No. 136/2010 was passed by Mr Jobim as Minister of Defence, under Lula's Presidency (Brasil. Ministério da Defesa, 2010, p. 1). A breakthrough it brought about was the definition of the four-year cycle for the publishing of PND-END-LBDN, which started from 2012 onwards.

[74] With regards to its competency, the Armed Forces Joint Staff – similar to its predecessor – is assigned to 'prepare the joint employment planning of the Armed Forces and advise the Minister of State for Defence on the conduct of joint exercises and on the performance of Brazilian forces in peacekeeping operations, as well as other duties that shall be established by the Minister of State for Defence' (Brasil. Ministério da Defesa, 2010, p.2). Additionally, it is defined as the 'permanent advisory body of the Minister of State for Defence', is headed by a four-star flag officer, active or reserve, indicated by the Minister of State for Defence and appointed by the President of the Republic, and shall have a committee composed of the Chiefs of Staff of the 3 (three) Forces, under the coordination of the Armed Forces Joint Chief of Staff' (Brasil. Ministério da Defesa, 2010, p.3).

particularly its navy, therefore offering the potential to affect its maritime strategy and its naval strategic thinking, as will be analysed as a whole in the next section.

To sum up, this section has shown how the navy's subsidiary assignments have increased over time, not only since the LC 69/1991, but also since the 1960s, as shown in the maritime policies topic with Decree-Laws No. 200/1967 and No. 62.860/1968. These contents, as seen, also influenced the formulation of defence policies and strategies from the mid-1990s onwards. These traits will also be noticed in the naval policies and doctrines of the 1970s, 1980s and 1990s, which points to the assessment that Brazilian maritime strategy has tended to be formed via both a top-down – from the national/defence level – and a bottom-up approach.

In conclusion, through the second objective of this thesis – to analyse national and defence documents and the legal framework – it is possible to see that there was more at play than solely the gradual consolidation of this higher-level basis for the subordinate level of naval thought and practice, which has always developed over time. It is also possible to see the connection between the cumulative historical experience described in Chapters 1 and 2 – in the peculiarities of the interaction between the BN and the nation, and in the crises and threats experienced – and the developments within sources at the higher levels analysed in this section.

This connection is evident in the maritime strategy perspectives elaborated upon in this thesis. While the functions of navies approach, the first (history, practice and thought) and third (narrow and broad maritime strategies) perspectives are pervasive across Chapters 2 and 3 (Figure 1.5), there is an increasing change in the latter from a focus on a narrow towards a broad maritime strategy. This also prompts the lenses of the fifth perspective (maritime security), as noted. The interest in protecting resources in Brazilian jurisdictional waters (inland waterways, territorial sea, the exclusive economic zone and extended continental shelf), and the need to tackle illicit acts at sea in these waters are increasingly reflected in these documents and the legal framework, thus moving beyond the more classic defence tasks, and reinforcing the constabulary roles.

The combination of defence and development realms, involving other expressions of national power, such as the economic level, and the domestic defence industry, offers not only an element of grand strategy, connecting to the second perspective (naval, maritime and grand strategies), but also elements of strategy of means, connecting to the fourth perspective. In the latter perspective, the basic tasks addressed in defence documents still connect to the operational strategies needed to undertake them. Additionally, these tasks associated with interests in Brazil's areas of operation will be linked to elements of the risk and opportunities approach.

Addressing the third objective in the next section will elucidate the manifestations of naval documents, naval force and naval publications, which will expectedly align with the documents and legal framework analysed above. As mentioned in section 1.6, it is expected that these three first objectives taken together will provide elements of ends, ways, means, opportunities and risks, inherent in any maritime strategy considered.

3.2 Formal expressions in the Navy

Hattendorf (2013) indicates the necessity of considering history, practice and thought to better understand what maritime strategy is. The goal of Chapter 2 was to address the BN's and Brazil's engagements, including historical aspects, which have influenced decision-makers' perceptions about security matters over time, thus affecting recent naval strategic thinking in Brazil. In the previous section, this influence could be observed in the national/defence (structural) aspects analysed. In this section, it is necessary to examine the unfolding changes or continuities at the naval level, exposing actual and potential interactions with the structural aspects mentioned. As such, the focus will be on the naval components of practice and thought, although their boundaries are not always clear. This does not present a problem as long as they represent manifestations of a whole naval strategic thinking phenomenon, expressed in the following items:

– **Naval documents**: policies (usually treated in primary sources as 'policies and guidelines': *políticas e diretrizes*, in Portuguese), ensuing strategies (explicit or not), and doctrines. In a sense, these documents form a bridge between what came previously (section 3.1) and what comes next. Applying Hattendorf's (2013) terms, these documents reveal the 'thought' rather than the 'practice', although the latter is present, since these ideas are embodied in actions regarding the force structure and its employment.

– **Naval force**: force structure and missions. These aspects represent the ultimate output of any navy, and therefore the concrete expression of its strategic thinking. As in Booth's (2014) and Grove's (1990) functions of navies approach, ships are central, although sometimes complemented by other agents of the navy, as will be seen. Their missions and unfolding activities represent their purpose, in theory and practice, respectively.

– **Naval publications**: These items include works from the Brazilian Maritime Journal[75] (RMB, *Revista Marítima Brasileira*, in Portuguese), and ideas from two recent Brazilian naval thinkers, Admiral Flores and Admiral Vidigal. Although not primary sources, they frequently address strategic themes regarding preparation and employment. They may not always represent the strategic thinking of the navy, but their contents and tendencies over time might offer relevant indications. This group reveals the 'thought' element of Hattendorf's (2013) perspective.

Addressing the governing aspects of naval documents will naturally lead to the identification of concrete aspects of naval force, while helping to explain the characterisation – with 'thought' preceding 'practice' – of Brazilian naval strategic thinking. Subsequently, this thesis will focus on naval force, combining force structure with the stated mission and unfolding activities over the timeframe ('practice'). Finally, naval publications will help consolidate the elements above (with 'thought' elements).

Considering the framework of risks-opportunities-ends-ways-means, as discussed in Chapter 2 and section 3.1, the first three elements were more obvious. The evidence found in the manifestations of the current Chapter will mainly point towards the latter two elements.

[75] The Brazilian Maritime Journal has been published since 1851 (Revista Marítima Brasileira, 2018a).

This approach will permit an adequate assessment under the five maritime strategy perspectives established, enabling, at the end, a more precise characterisation of Brazil's maritime strategy and its associated naval thinking.

3.2.1 Naval Documents – or the Thought and Practice levels

How Brazil, and particularly the Brazilian Navy, has been formulating maritime strategy over the last decades is the central question of this chapter, and, more specifically, of this section. Addressing policies, strategies and doctrines considering the framework above will help us gather the elements to answer it.

Naval Policies

A short background is necessary to provide context. As set out in the 1967 Constitution, it was usual to produce nearly annual versions of the naval policy.[76] The versions included 1967, 1970 (not available), 1971–1975, 1976 (not available), and 1977–1983. During the timeframe, there were only the versions of 1996 (not available), 1998 and 2003. Other versions in the 1980s and 1990s were not available, but the last version, of 2019, is currently accessible.[77] Given that there were more versions available prior to rather than during the timeframe, the naval policies up to 1983 arguably provide a general tendency of the naval posture that prevailed over the first part of the timeframe, while the 1998 and 2003 versions gave that tendency to the second part. In the first part, the attempt to find some alignment between the naval level and the higher-level documents occurred with the Constitution of 1988 and maritime policies of 1984 and 1994, up to the PDN 1996, while in the second part that alignment also occurred with the new defence documents and legal framework.

The first versions of naval policies have followed the established definition since 1971:

> System of principles […] that guide the organization, development, maintenance, supply, training and employment of the Navy's combat power. It is based on the National Policy and Brazilian interests and is designed to support them. It is one of the components of Maritime Policy [yet to be published as national document in 1984, as seen] and involves activities related to:
> - the characteristics, quantity, distribution of naval material and its supporting infrastructure;
> - quantity, qualification and other activities related to the personnel that integrates it;
> - specialized services maintained by the Navy; and

[76] The titles presented show slight differences. Before the timeframe, these were: 1967, *Políticas e Diretrizes Básicas e Principais Empreendimentos* (Basic Policies and Guidelines and Main Enterprises); 1970, *Políticas Básicas e Diretrizes Básicas* (Basic Policies and Basic Guidelines); 1971, 1972, 1973, 1974, *Políticas e Diretrizes Básicas* (Basic Policies and Guidelines); 1975, *Políticas Básicas* (Basic Policies); 1977, 1978, 1979, *Políticas Básicas e Diretrizes* again (Basic Policies, and Guidelines); 1980 and 1983, *Política Básica da Marinha* (PBM) (Navy Basic Policy). During the timeframe, these were: 1996 and 1998, *Política Básica da Marinha*; and 2003 – *Diretrizes Básicas da Marinha* (Navy Basic Guidelines). After 2008, the policies and guidelines were included in the classified document called the Navy Strategic Plan (*Plano Estratégico da Marinha*, PEM, in Portuguese) (Estado-Maior da Armada, 2018). All these titles are usually treated here as naval policies.

[77] See *Política Naval*, 2019 (Naval Policy, 2019) (Brasil. Marinha do Brasil, 2019). Available at: https://www.marinha.mil.br/politicanaval.

- the nature of operations to be executed by the Navy in peace and war. (Brasil. Ministério da Marinha, 1971, p.6, 1972, pp.5–6)

In these first activities, it is possible to observe the topics of 'means' to be addressed in the first three, and the topic of 'ways' to be addressed in the last, relating to the 'operational strategy' associated with the fourth perspective.

The elaborated versions were usually discussed within the Admiralty and then approved by the Ministry of the Navy (Brasil. Ministério da Marinha, 1971, 1972, 1973, 1974, 1975), or by the Commander of the Navy as of 1999. The first available version, of 1967 (Brasil. Ministério da Marinha, 1971, p.5), should be read within two wider contexts: the recent transference of Brazil's capital from Rio de Janeiro to Brasília in 1960,[78] and the beginning of the military governments in 1964. These events, along with the promulgation of the Constitution of 1967, influenced structural reforms on the federal level, as expressed by the already cited Decree-Law No. 200 of 1967. Decree-Law No. 62.860 of 1968 not only reinforces the navy's role in formulating the PMN, but also determines the formulation of naval policy, as noted in section 3.1.2. Thus, these elements, combined with the stated definition of naval policy, demonstrate the novelty of this systematisation as of the mid-1960s. Within this systematisation, addressing the interface between the upper governmental level and the high-level planning of the BN aids an understanding of the naval policies' conception and outcomes. Although these events occurred well before the timeframe of the thesis, they have influenced subsequent naval policies which have attempted to construct and maintain a force structure via procurement programmes, as, for instance, in the case of the 1967 programme. A still visible example nowadays is the case of the Niterói class frigates, whose contract of construction was signed in 1970 and the building process was extended from the first ship in 1972 to the commissioning of the last – the sixth – in 1980 (Sharpe, 1988, p.55). Some early versions of the naval policies explain the links between these levels.

As both Figures 3.2 and 3.3 below reveal, there were two relevant phases in the conception of a naval policy: the formulation phase and the unfolding phase. The formulation phase (Figure 3.2) includes documents that comprise part of the National Policy[79] and influence the Navy Strategic Plan (*Plano Estratégico da Marinha*, PEM), which is central to the Navy's defence systematisation. Among the documents listed, the National Plan for Development (*Plano Nacional de Desenvolvimento*), the National Plan for Security (*Plano Nacional de Segurança*), the National Maritime Policy (*Política Marítima Nacional* - PMN) and the National Policy for Marine Resources (*Política Nacional de Recursos do Mar* - PNRM) are the most relevant for the purposes of this thesis. The first pair reveals the roots of the development and security (later treated as defence) dichotomy, as noted in previous sections, and which appears in all naval policies.[80] As seen in the newer defence policies and strategies (2008, 2012,

[78] Yet, in colonial times, the city of Rio de Janeiro – after the city of Salvador – had been the capital of Brazil, as a Viceroyalty, 1763–1815, and capital of the United Kingdom of Portugal, Brazil and the Algarves, 1815–1822. After Brazil's independence, it was capital of the Empire of Brazil, 1822–1889, and capital of the Republic of the United States of Brazil, 1889–1960. Brasília became the capital in 1960, and after 1967 Brazil's official designation became the Federative Republic of Brazil (Cavalcanti *et al.*, 2012).

[79] It is mentioned in some 1970s naval policy versions that a number of these documents were already existent, but others were in the process of elaboration (Brasil. Ministério da Marinha, 1973, p.5, 1974, p.5, 1975, p.5).

[80] Some stated actions for development include: 'increased participation of national civilian industry in naval ventures, including shipbuilding'; 'development of research of interest to the country in cooperation with other

2016), development and security are constantly present, at the national level, even well before the MoD's formation and its subsequent documents. This shows Brazil's rather deep-rooted core objective of prompting the military, including the navy, to assume a significant role in these tasks. As will be seen in policies, strategies and doctrines, this is as much present in the naval level as it is in the levels above. It will relate directly to a strategy of means approach and to the functions of navies conceptual framework, rebranded for Brazil's case, as will be seen in Chapter 4. The second pair emphasises, as will be seen, the structural character of the already assessed PMN and the influence of the PNRM mentioned in section 3.1.2, and addressed later.

The unfolding phase (Figure 3.3), besides showing the direct influence of the PMN and PNRM on the PEM, also shows the role of the naval policy (Basic Policies and Guidelines; *Políticas e Diretrizes Básicas*, in Portuguese) within the Master Plan (*Plano Diretor da Marinha*),[81] directly conditioning the elaboration and execution of the Basic Plans (*Planos Básicos*) and Programmes, and ultimately influencing the whole navy via the Plans of Actions to put these Programmes in place.

The influences of the PMN and the PNRM on the PEM and the interaction between the latter – the Master Plan and the naval policy – deserves a deeper assessment. This is important because the centrality of the PEM and the naval policy in its systematisation helps to show the postures taken in terms of naval strategic thinking not only in the first period of the timeframe, but also from the mid-1990s onwards, with the influence of defence policies and strategies.

This approach reflects the participation of the BN as a state agent in maritime governance in Brazil, which is largely noticeable firstly through the PMN of 1984 and 1994, and through the role of Maritime Authority assumed by the Commander of the Navy in the 1990s. This converged to the maritime security concept and its evolution in the international debate, as analysed in section 1.5.2. Secondly, the PNRM, which first appeared in 1980 (Bakker, 1983, p.103), indicates how the navy's activities go beyond the realm of maritime strategy in the traditional war-centric sense to reach the realm of marine activities that are not security-related – seeking not only to protect resources, but also to support marine scientific research, working closely with the Brazilian scientific community. In this sense, the already cited Navy-led Interministerial Commission for Marine Resources (CIRM) – created in 1974 (Brasil. Presidência da República, 1974) and advised by its two-star admiral led Secretariat (SECIRM), institutionalised in 1979 (Brasil. Presidência da República, 1979) – was the organisation that would come to coordinate efforts for the achievement of the PNRM objectives.

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national organizations'; and 'expansion of support, safety and performance in the development of maritime, river and lake navigation' (Brasil. Ministério da Marinha, 1971, p.7, 1972, pp.6–7, 1973, p.12).

[81] The Navy's Master Plan was created in 1963 and was widely reviewed in 1967 (Brasil. Ministério da Marinha, 1971, p. 5). Its purpose was '[...] to express the goals of the Navy, compatible with the National Policy and the Naval Policy, conditioning processes and means to reach them, and also to integrate harmonically and hierarchically the operational (mostly the lines that involve the Naval Military Plans) and administrative (mostly the lines that involve the Basic Policies and Guidelines and the Determination of Forces and Personnel) actions, aiming at the rational and efficient use of the available resources […]; aims also to harmonize the efforts developed in the Navy with the General Plan of the Government, besides rationalizing and making efficient the administration of the businesses and the fulfilment of the constitutional destination of the Navy' (Brasil. Ministério da Marinha, 1973, p. 8).

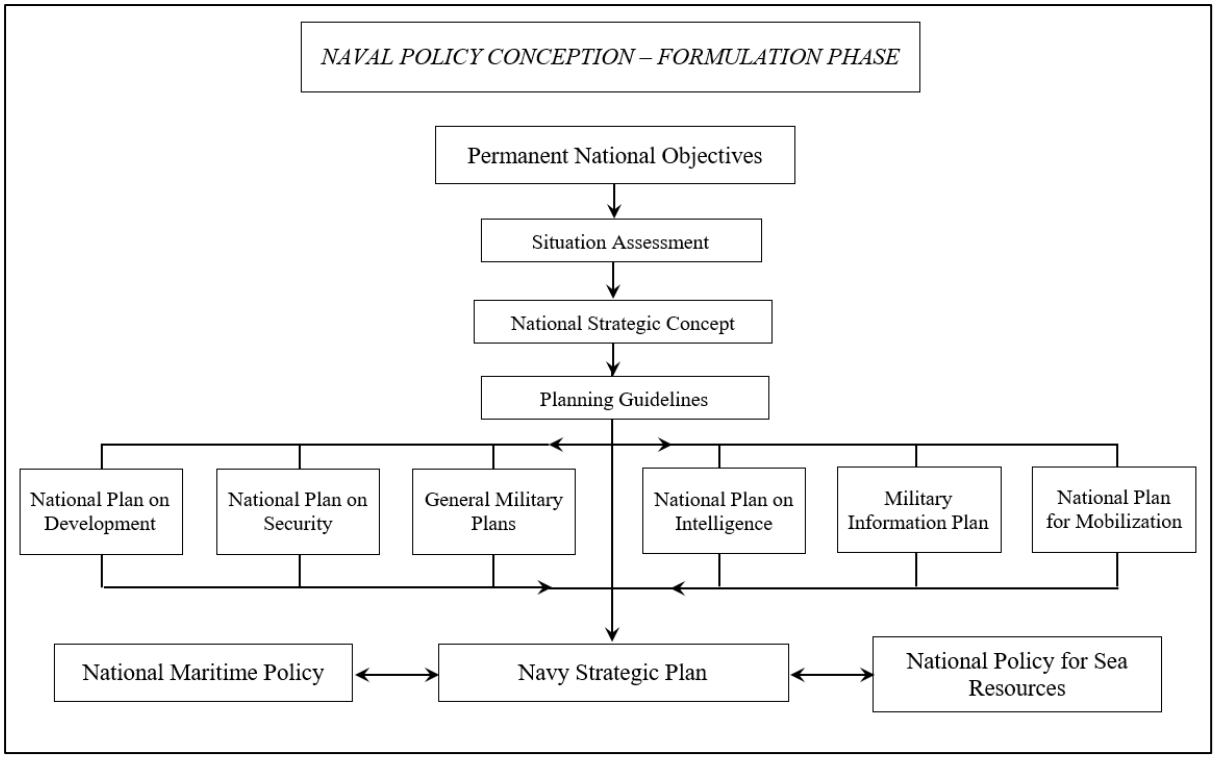

Figure 3.2 – Adapted from the Naval Policy Conception; Formulation Phase (Brasil. Ministério da Marinha, 1973, p.8)[82]

This type of role evolved in the context of the substantial increase in marine scientific research from the 1960s onwards, with a focus on economic exploration, which also stimulated the conferences on the Law of the Sea, notably the UNCLOS III (1973–1982). This trend prompted some countries to create organisations to coordinate scientific activity at sea: the United Kingdom created the Natural Environment Research Council in 1965; the United States, the National Council on Marine Resources and Engineering Development in 1966; and France, the *Centre National pour l'Exploration des Océans* (National Centre for the Exploration of Oceans) in 1967 (Bakker, 1983, p.103). In the context of CIRM and as a consequence of Brazil's adherence to the Antarctic Treaty in 1975, the Navy absorbed the management of the Brazilian Antarctic Programme (PROANTAR) in 1982, with its first expedition to that continent happening in this same year (Brasil. Presidência da República, 1982; Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2018). Many programmes and projects have started and have been conducted since then, as will be further addressed.

Regarding the PEM itself, its contemporary conception, embedded in the systematisation of the high-level planning of the navy since the 1970s,[83] has its roots in the publication of its first document in 1974, which has been periodically updated (Longo, 2002, p.26,30). It is considered the fundamental and starting document of all planning in the navy (Longo, 2002, p.30), as the Figures 3.2 and 3.3 suggest, being the main output of the

[82] Some of these documents were in process of elaboration (Brasil. Ministério da Marinha, 1973, p.5, 1974, p.5, 1975, p.5).

[83] For that matter, the term 'high-level planning of the navy' (*Sistemática de Planejamento de Alto Nível da Marinha*, in Portuguese) in the establishment of the naval policy, was also coined and referred to in all documents and systematisation addressed on that level (Brasil. Ministério da Marinha, 1998a, p. IV; Longo, 2002, p. 23).

formulation phase of the conception of naval policy. The 1973 naval policy states that the PEM defines:

> the manner in which the Navy must act in all fields of activity of the Nation, in peace or war, in order to fulfil the National Policy and Strategy – from which the Naval Policy and Strategy of the Country stem from. (Brasil. Ministério da Marinha, 1973, p.6, 1974, p.6, 1975, p.7)

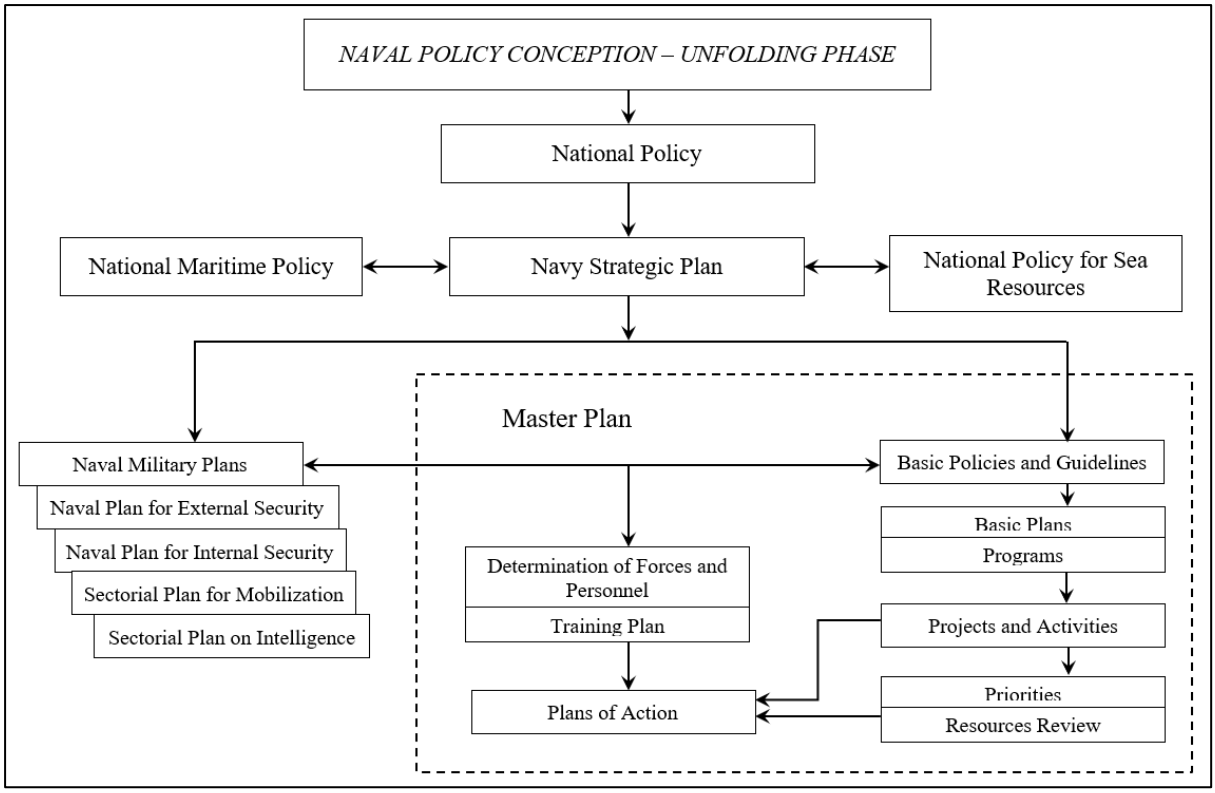

Figure 3.3 – Adapted from the Naval Policy Conception; Unfolding Phase (Brasil. Ministério da Marinha, 1973, p.9)

The PEM remained important as a high-level document in the navy's defence systematisation before and throughout the timeframe, as demonstrated by the inaugural lecture made in 2002 by the then-Chief of Navy Staff, Admiral Longo, to students enrolled in the advanced studies courses at the Brazilian Naval War College[84] (Longo, 2002). In the 1970s, it comprised two documents: Naval Strategic Assessment (*Avaliação Estratégica Naval*, AENAV) and Naval Strategic Concept (*Concepção Estratégica Naval*, CENAV) (Brasil. Ministério da Marinha, 1973, 1974, pp.6–7, 1975, p.7). The first assesses the international and domestic scenario and the second provides war hypotheses and other factors related to conflict preparedness. From the CENAV, as well as from other conditioning factors, stems the mission

[84] The naval policy versions of 1973, 1974 and 1975 offer more details about the structure of the PEM at that time (Brasil. Ministério da Marinha, 1973, pp.6–7, 1974, pp.6–7, 1975, pp.6–7). As the PEM has usually been a classified document, references to it are not always available. However, we can comment on the article from the RMB, which is a result of the inaugural lecture mentioned (Longo, 2002).

of the navy and from this, in turn, the necessary means (Brasil. Ministério da Marinha, 1973, p.7, 1974, p.7, 1975, p.7).[85]

Regarding the naval policies themselves, as was explained in the introduction of section 3.2, the risk-opportunity-ends-ways-means framework will be used here as much as possible to better associate the evidence with maritime strategy and its many perspectives. Although, as mentioned, the evidence in this section relates more to means and ways, it will occasionally be possible to associate some evidence with the first three elements. The systematisation previously discussed allow us to understand that the risk-opportunity-ends elements will mainly be present in the documents above the naval policy (Basic Policies and Guidelines) and PEM levels, such as the National Strategic Concept and Permanent National Objectives (both unavailable), as seen in Figures 3.2 and 3.3.

There are major and minor differences in the structures of naval policy versions over time, but their main point of convergence is in their list of guidelines: called '[specific] policies [or basic policies] and guidelines' (up to 1979), 'objectives and guidelines' (1980, 1983 and 1998), or simply 'guidelines' (2003).[86] Before the naval policy of 1977, the guidelines were issued in terms of areas, which were usually operational or administrative – for example, 'Operations and Training', 'Naval, Aerial, Terrestrial, and Amphibious Means', 'Organisation and Administration', 'Communication', 'Science and Technology', 'Maritime Activities', 'Supply and Maintenance', and 'Public Relations'. From 1977 onwards, they were issued under responsibilities of the Navy Staff and each head of sector: Command of Naval Operations and General-Directors of Material, Navigation, Personnel, and Finances (Brasil. Ministério da Marinha, 1977). As these topics suggest, they are not only of an administrative, research-related or developmental nature, but they also expose content linked to 'ways' and 'operational strategies', and 'means' and 'strategy of means'.

Given the comment at the beginning of this section, that naval policies up to 1983 have provided a general tendency of naval posture for the first part of the timeframe of this thesis, while the 1998 and 2003 versions gave the tendency for the second part, it follows that the main three periods – two before the timeframe and one during it – encompass the main details of the naval policies of these periods, which in turn will form the basis for the ensuing sections of naval strategies and naval doctrines.

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[85] AENAV contains a Situation Assessment, at the strategic level and under the naval approach, of the world and national conjunctures; CENAV contains War Hypotheses, Strategic Areas and Routes, Enemy Possibilities, Strength and Weakness Factors, Navy Missions, Current Naval Objectives, and Required Means. In the Naval Strategic Concept, the War Hypotheses (contained in the NSC [National Strategic Concept, *Conceito Estratégico Nacional*, CEN]) are analysed from the naval perspective, in order to verify their adequacy and possible omissions in the face of specific problems of war at sea. The Navy's Mission logically follows from the War Hypotheses and other conditioning factors. The Means Needed, in turn, flow from the Mission (Brasil. Ministério da Marinha, 1973, p.7, 1974, pp.6–7, 1975, p.7); DIPNAV (Guidelines for Naval Planning; *Diretrizes para o Planejamento Naval*, in Portuguese) contains Basic Policies for the strengthening and application of Naval Power and for obtaining the Necessary Information (1975, p. 7). It can be noted that in the 1973 and 1974 naval policies, the expression designating the term was Naval Strategy Assessment (*Avaliação Estratégia Naval*), instead of the 1975 term Naval Strategic Assessment (*Avaliação Estratégica Naval*), although the definition remained the same, which can lead one to infer that in the first two policies, there was a simple misspelling.

[86] In this section, the general term used will be 'guidelines'. In past policies, the guidelines have sometimes moved. For instance, during the late 1960s and 1970s, they were part of the naval policy itself, following the inner specific policies, with an exception in the mid-1970s, when they were included in the PEM and labelled DIPNAV (Brasil. Ministério da Marinha, 1975, p. 7).

1975 to 1979

A relevant part of the naval policies in the background period was a general strategic assessment of the international context – Brazil being part of this – that started to appear from the 1975 version onwards and continued until the 1979 text, under the label of 'conditioning factors'. They usually expose elements of 'risk-opportunity', contributing to shape the 'ends' for Brazil and its navy. One factor mentioned was that limited conflicts were more likely than generalised wars, and, along with the proliferation of political, social and economic crises, could demand military power employment without any direct interference of the superpowers (Brasil. Ministério da Marinha, 1975, p.12, 1977, p.3, 1978, p.2, 1979b, p.1). A subsequent factor was the consequently predominant application of military power as an instrument of deterrence, with preparedness being crucial for the state's commitment to its national interests under threat (Brasil. Ministério da Marinha, 1975, p.12, 1977, p.3, 1978, p.2, 1979b, p.1). Other factors emphasised the specifics of Brazil's situation, including its maritime vulnerabilities, dependence on oil imports, high concentration of economic resources in coastal areas and intensification of oil exploration on the continental shelf (Brasil. Ministério da Marinha, 1975, 1977, p.4, 1978, pp.2–3, 1979b, pp.1–2). It is also mentioned Brazil's growing dependence on the sea for achieving its national objectives, highlighting the importance of the expansion of the civilian component of maritime power, particularly the sea trade, the merchant navy and port facilities, so that the country could achieve a high index of development (1975, p.13, 1977, p.4, 1978, p.3, 1979b, p.2). Thus, there was a need to prioritise the development aspect in the 'development and security' dyad, given the then-current underdevelopment of the country (1975, p.13, 1977, p.4, 1978, p.3, 1979b, p.2). However, it is stated that investments in security should, whenever possible, represent a stimulus to development (1975, p.13, 1977, p.5, 1978, pp.4–5, 1979b, pp.2–3). A final relevant factor to all naval planning is the viability of effective support to Brazilian diplomatic actions via the appliance of warships, marine groups and naval force (1975, p.13, 1977, p.5, 1978, pp.4–5, 1979b, pp.2–3). These versions of naval policies demanded that the main conditioning factors were to be adopted for any planning in the navy and were to be embedded, to a certain extent, in the subsequent objectives and guidelines (1975, p.13, 1977, p.5, 1978, pp.4–5, 1979b, pp.2–3). As seen, the themes of limited conflicts, instruments of deterrence, oil exploration, dependence on the sea, development, and diplomatic actions can be viewed as elements of risk-opportunity, and, therefore, can also be found in defence documents from the mid-1990s onwards.

Based on factors like these, the policies from 1975 to 1979 grouped their 'basic policies' (guidelines), which provided a general idea of the main concerns of the naval elite back then. In terms of operational strategy or force employment, for instance, one guideline stated that priority should be preparedness of the navy for a limited war. In doing so, the documents argue, the navy would be prepared for internal security threats (a concern at that moment) and a generalised war, although it acknowledges that the latter would only be viable in alliance with great naval powers (Brasil. Ministério da Marinha, 1975, p.13, 1977, p.5). Brazil's ambition to become a naval power is also specifically highlighted (1978, p.3, 1979b, p.2). Still, with regards to operational strategy, an important guideline was to establish the implementation of activities for the defence of maritime platforms for oil exploitation (1979b, p.4). In terms of strategy of means, one guideline established the need to provide incentives for research

activities for scientific and technological programmes related to the expansion of naval power, via encouraging support from governmental organisations and the participation of universities, thus aiming for less external dependence (1979b, pp.3–4). Other guidelines exposed the navy's apprehension regarding its many roles. The 1977 and 1979 versions, for instance, stated that priority should be given to the oceanic mission of the navy, i.e. the blue-water capability. The expenditure both in riverine areas and non-military subsidiary activities, 'both in which the navy has been acting by legal determination, tradition or lack of who replaces it', needed to be reduced, provided that doing so would not bring any harm to the country (1977, p.5, 1979b, p.3). Admiral Mauro Cesar[87] also exposed this concern in a statement to this thesis's author, demonstrating a long-lasting cultural aspect in the Navy in the context of the Cold War:

> […] [As a lieutenant commander, in the late-1960s, I] accompanied some [officers] who wanted the Navy to get rid of its subsidiary activities. [...] I thought it was correct then. As time went on, I learned that the tradition we inherited from the Portuguese was for us to do all this. [There is] a big advantage. […] [S]ince we [as a country] do not spend much resources on defence, […] the exercise of these so-called subsidiary activities [...] is a way for us to maintain a living [personnel] reserve. (personal communication, March 26, 2019)[88]

It is reasonable to assume – as his change of heart indicates – that this long-lasting cultural aspect of the Cold War in the BN (avoiding subsidiary activities) has gradually waned with the its end. Further evidence will demonstrate this.

Another topic present from the 1979 naval policies onwards was the mission of the navy, which has also been present in all naval doctrine versions from the same year. The text of mission in the 1980 and 1983 policies is very similar to the original:

> To guide the preparation and application of the Maritime Power and to prepare and apply the Naval Power, in peace and in war, to fulfil the following tasks [...]:
> – to control the maritime areas needed for the maintenance of maritime communications of Brazilian and allied interest, in accordance with the international commitments assumed;
> – to control maritime areas of interest for the security of the national territory and for safeguarding the resources of Brazilian jurisdictional waters and the continental shelf;
> – to deny the use of maritime areas to the enemy;
> – to dissuade hostile attitudes and stimulate favourable ones;
> – to project power;
> – to contribute to the guarantee of the use of the main channels and secondary waterways attainable therefrom, in the Amazon and the Paraguay River Basins;
> – to cooperate with the other Single Forces;
> – to contribute to the maintenance of law and order and institutions;
> – to provide for the safety of maritime, river and lake navigation; and
> – to collaborate in the socio-economic and technical-scientific development of the Country; in order to contribute to the achievement of the National Objectives. (Brasil. Ministerio da Marinha, 1979b, p.II, 1980a, pp.5–6, 1983b, p.2)

[87] Admiral Mauro Cesar was Minister of the Navy from 1995 to 1998.
[88] Admiral Leal Ferreira follows the same line regarding personnel reserve (personal communication, March 21, 2019).

The dual leadership in the BN is clear in the first lines of the mission. The first part (Maritime Power), as a maritime authority, guided all non-military activities related to the sea and inland waters, as seen, such as through providing safety of navigation. The second part (Naval Power) relates to the leader of a military naval force. The tasks that follow exhibit in part the traditional roles of naval forces related to sea control, sea denial, deterrence and power projection, considering the operational space of the maritime areas and the Amazon and Paraguay river basins, critical to the interiorisation of the country. They are also seen in the navy's specific role to collaborate on two aspects of development: socio-economic and technical-scientific. These tasks allow the association of 'risk-opportunities' elements (linked to operational spaces and resources in the continental shelf and jurisdictional waters) and 'ways' to 'operational strategies' of a large spectrum, demonstrating already at that moment the multifaceted character of the BN. It also gives us an idea of how the navy and the Brazilian establishment saw the navy's essential roles shortly before the start of the thesis's timeframe.

Given that the force structure, comprising mainly the naval force but also some specific organisations, would be the direct agents to undertake these and eventually other tasks, all missions' versions, available in the naval policies and doctrines, will be assessed in section 3.2.2, following the force structure analysis.

1980 to 1983

The 1980 and 1983 naval policies, in turn, restated their purpose, which seems to assert a clearer interaction between the naval policy, the PEM and the Master Plan:

> The Navy Basic Policy, based on the Navy Strategic Plan [(PEM)], adjusted to current and foreseeable future contingencies, is intended to guide the preparation and employment of the Navy. It is, therefore, a document that orientates the Master Plan, which defines and guides the actions to be undertaken in the various levels of the Navy. (Brasil. Ministerio da Marinha, 1980a, p.1, 1983b, p.1)

The guidelines combine the previous format of head of sectors (led by four-star admirals) with subjects such as 'readiness', 'personnel', 'material', and 'maritime activities' (Brasil. Ministério da Marinha, 1980a, 1983b). The specific policies, now reduced in number, are taken as 'objectives' and a list of guidelines aimed at achieving them is provided (1980a, 1983b).

In contrast, the conditioning factors did not change much. One of the concerns was about the ability to operate in areas not any further than the South Atlantic in case of conflict (Brasil. Ministério da Marinha, 1980a, pp.3–4, 1983b, pp.3–4). Some facts reinforce the South Atlantic's strategic importance: cabotage, the convergence of the transoceanic routes of Brazil's direct interest as the natural way of possible naval threats to Brazil, and the desirability of Brazil maintaining a close relationship with countries that share the same ocean (1980a, pp.3–4, 1983b, pp.3–4). The perception of the unlikelihood of a generalised war is maintained (1980a, p.3, 1983b, p.3). Although, in that case, an alliance with maritime powers might be expected, the text makes it clear that 'what was vital and close to Brazil could not depend on great powers' (1980a, p.3, 1983b, p.3). Likewise, this applied to cases of smaller conflicts, which could vary from limited wars to safeguarding marine resources and maritime law and order (1980a, p.3, 1983b, pp.3–4). In this context, they stated that naval procurement and

training should consider problems such as maritime traffic protection and the defence of territory and maritime facilities in general (1980a, p.3, 1983b, p.4). The 1980 naval policy acknowledges, however, that, regarding Brazilian interests 'in more distant waters, the national restrictions obliged them to trust it to the international order or, in case of war, to the interallied effort' (1980a, p.4), which reflects the navy's awareness of its own limitations. Some other aspects are also addressed such as safety of navigation activities, maritime search and rescue, oceanography, naval policing, personnel education for the merchant navy, repair and shipbuilding – complementing the civilian sector – and social assistance. The reasons identified for the BN executing the latter are Brazil's development status, lack of civilian availability, or national security (1980a, p.4, 1983b, p.4). They again demonstrate the relevance of this BN's role within Brazilian society, along with the elements of risk-opportunity involved.

The factors discussed lead to a list of objectives, which also do not change much compared to previous guidelines, and include preparedness for a limited war, considering the areas of operation already mentioned (Brasil. Ministério da Marinha, 1980a, p.7, 1983b, p.6). The efforts made towards nationalisation of procurement processes, development, and gradual disengagement from activities that could be conducted by civilians are also mentioned (1980a, p.7, 1983b, p.6).

After the conditioning factors and objectives, the guideline subjects of 'readiness', 'materiel', 'maritime activities', and 'media' are worth highlighting.[89] The first reason for this selection is that, although some were already addressed in previous policies, in these 1980s versions they are deepened. The second is their alignment not only with the next naval documents, presenting practical-level elements associated with force structure, missions and activities, and thus acting as manifestations of Brazil's maritime strategy, but also with national/defence level.

In terms of 'readiness', apart from concerns related to the operational capability of ships, aircraft and marine units, what stands out is the preoccupation with developing activities and doctrines regarding the navy's peculiarities and Brazilian reality – for instance, the defence of maritime infrastructure for oil exploration (Brasil. Ministério da Marinha, 1980a, pp.9–10, 1983b, pp.8–9). This is a growing concern, given the continuous increase of Brazil's capacity for deep-sea oil exploitation combined with its heavy dependence on oil imports.

Regarding Brazil's long coastline, the navy's outward interests at sea refer to training its naval force for increasing its oceanic operational efficiency in terms of area and time (Brasil. Ministério da Marinha, 1980a, pp.10–11, 1983b, pp.9–10). Regarding its inward interests, the concerns are directed towards maintaining two prepared and trained forces for riverine operations, one in the Amazon and the other in the Paraguay river, along with developing correspondent doctrines (1980a, p.10, 1983b, p.9). As for general concerns, the interests include acting cooperatively with the air force for developing air-sea operations, including maritime air patrol; and enhancing the operational exercises and training courses with foreign naval powers whenever possible, trying to absorb and adapt state-of-the-art knowledge (1980a, p.11, 1983b, p.10).

[89] Altogether, there are seven subjects: readiness, personnel, materiel, operational research and systems analysis, organisation and methods, maritime activities, media (in Portuguese, respectively: *aprestamento*, *pessoal*, *material*, *pesquisa operacional e análise de sistemas*, *organização e métodos*, *atividades marítimas*, *comunicação social*) (Brasil. Ministério da Marinha, 1980a, pp.9–25, 1983b, pp.8–25).

In terms of 'materiel' aspects, among others, a continued institutional effort is made to stimulate national warship shipbuilding, either by supporting national projects of ships and crafts or incentivising the private sector through long-term programmes (Brasil. Ministério da Marinha, 1980a, p.16, 1983b, p.15). Another focus is prioritising incentives to use national industry and import technology rather than finished goods (1980a, p.16, 1983b, p.15).

With regards to 'maritime activities', the guidelines unsurprisingly reflect interactions with the civilian sectors, especially scientific exploration and use of the sea. Additionally, constabulary activities are also mentioned, together with an aim to establish a coastal patrol and naval police organisational structure to cope with the new Law of the Sea, signed in 1982, yet to come into force (Brasil. Ministério da Marinha, 1980a, p.24, 1983b, p.23). Similarly, the consolidation of the search and rescue system is mentioned, with a large area of responsibility in the South Atlantic, as seen in section 2.2 (1980a, p.24, 1983b, p.23).

Many guidelines on 'sea-related scientific activities' are mentioned. For instance, these include the continuation of hydrographic surveys on port areas and main parts of the littoral and navigable rivers (Brasil. Ministério da Marinha, 1980a, p.23, 1983b, p.22), and the implementation of the National Bank of Oceanographic Data, which aims to widen the data collection on activities of hydrography, navigation, meteorology, oceanography and remote sensing of the Equatorial Atlantic and South Atlantic (1980a, pp.23–24, 1983b, pp.22–23). A third guideline proposes collaboration with national entities involved with marine resources exploration and oceanographic prospection in Brazilian jurisdictional waters (1980a, p.24, 1983b, p.23), while a fourth guideline initiated in the 1983 text promotes scientific research in the Antarctica and adjacent seas, combined with the objectives and guidelines of the National Policy for Antarctic Affairs (1983b, p. 24). It is also worth stressing that these guidelines relate to the navy's continuous concern about prioritising resources to expand its oceanic military capabilities, while gradually disengaging from non-military activities (1980a, p.23, 1983b, p.22). It seems clear, however, that doing so does not affect the scientific activities, as documents at the national/defence level have shown. At the same time, this concern has waned over time, with such activities being gradually reinforced by the Navy, as some further figures, for instance about means, will indicate.

When discussing the subject of 'media', the guidelines address internal and external audiences, stressing the potentialities of the nation's maritime interests and their dependence on the sea for national development, especially in the 1983 naval policy (Brasil. Ministério da Marinha, 1980a, p.25, 1983b, p.25), which directly presages the Blue Amazon concept born in the 2000s, as discussed in the previous chapter.

1998 to 2003

The assessing of the naval policies from the 1998-2003 period, following the naval policies of the background periods (the late 1960s, 1970s, and early 1980s) up to 1983, and compared to them, might offer a notion of tendencies for the first and second halves of the timeframe.[90] In this context, it offers evidence to examine to what extent change has occurred, or not, during these moments of the timeframe, as well as what the new tendencies might be.

[90] The 1994 and 1996 naval policies are not available in the registers anymore, aside from possibly other policies between 1983 and 1998.

The significantly lower number of policies published over the timeframe compared to the previous period obviously does not mean that there is an absence of naval policies. It might simply mean that the content of the 1983 policy remained updated enough to not deserve a new version. At the same time, the combination of policies, strategies and doctrines allegedly governs the navy's actions. Additionally, it is relevant to stress that the 1988 Constitution, the PMN of 1984 and 1994, the PDN 1996, and LC 97/1999 – examined in section 3.1 – were available as a basis for the subsequent naval documents, as was the case with the 1998 and 2003 policies.

The 1998 naval policy preserved the main structure of the 1983 version, establishing the mission of the navy, the conditioning factors, the objectives to be achieved and the actions needed to achieve those objectives (Brasil. Ministério da Marinha, 1998a, p. IV). Additionally, it, in fact, highlighted the constitutional elements of defence of the homeland and assurance of institutions and law and order, as well as the activities under the so-called 'subsidiary assignments' (1998a, p. 1.1). Those activities to a certain extent already existed in previous naval policies (1960s, 1970s, 1980s) and in the two versions of the PMN (1984 and 1994). In the previous policies, these assignments did not have the same emphasis. On the contrary, there were, as seen, specific policies for the navy to find ways of disengaging from them in order to keep the focus on the considered main task of defence along with oceanic capabilities (1983b, p. 22). This guideline has never materialised since it has not been possible for an agent other than the BN to conduct it.

Associating this recursive point with the cited statement of Admiral Mauro Cesar on BN's cultural traits, it is worth illustrating some changes within the Brazilian Navy from the 2010s onwards. The motto 'Brazilian Navy, a resource irrigator in the country's economy' was, for instance, automatically displayed at the end of the navy's institutional electronic correspondence in the early 2010s, stressing the economic benefits resulting from investment in the navy (Estado-Maior da Armada, 2019). After May 2015, the motto shifted to 'Brazilian Navy, protecting our riches, taking care of our people' (Estado-Maior da Armada, 2019). The first part demonstrates an asset-driven rather than a directly enemy-driven posture[91], as examined in Chapter 2. The second part expresses an official concern with matters other than the pure combatant power, which demonstrates arguably the BN's stronger commitment to its multiple purposes.

Besides, subsidiary assignments became noticeable also when the policy addressed the stated mission of the navy – which maintained the same content of 1983 – making it clear that such a mission is 'concerned not only [with] the concept of the naval power employment, but also [with the Navy's] subsidiary assignments' (Brasil. Ministério da Marinha, 1998a, p. 1.1). It is clear again that the navy has a key responsibility regarding maritime power (*poder marítimo*) in Brazil.

With regards to naval power, the policy reiterates the need stressed in previous policies for the navy to be able to execute the so-called 'classic basic tasks': sea control, sea denial, power projection and contribution to deterrence, with a similar list of tasks (Brasil. Ministério

[91] Admiral Moura Neto, when confronted by politicians with the fact that Brazil has not clear enemies, addresses this point by saying that, nevertheless, no one could deny the immense resources Brazil has to secure and defend against any possible antagonist (personal communication, March 27, 2019).

da Marinha, 1998a, p. 1.2). Regarding the established conditioning factors, it is worth checking for similarities or distinctions. This might inform whether, on the higher level, any particular distinct strategic posture might have gained more attention or fallen away in this 15-year gap, which included, for instance, the end of the Cold War and developments of the UNCLOS III, which came into force in 1994. As for similarities, in the case of conflicts, Brazil should not depend on great powers in the defence of its vital interests (Brasil. Ministério da Marinha, 1983b, p.5, 1998a, p.2.1), as reflected even today in the actions of the navy and Brazilian society, and demonstrated in future defence documents. Another similarity concerns the attention paid to the lack of diversified naval aviation, meaning limited naval power employment (1983b, p.5, 1998a, p.2.1). This issue relates to the navy's efforts to keep operating aircraft carriers and to regain the right to operate fixed-wing aircraft, as previously discussed.

A new factor in the 1998 naval policy includes the growing probability of the navy's participation in peacekeeping operations due to the country's commitment to international organisations (Brasil. Ministério da Marinha, 1998a, p. 2.2). It had already happened previously, for instance, between 1995 and 1997, in the United Nations' Angola Verification Mission III, UNAVEM (United Nations, 1998). It would happen again in 2004 with the United Nations' Stabilization Mission in Haiti, MINUSTAH (United Nations, 2018).

The 'objectives' of the 1998 policy, influenced by the PDN 1996, were divided into 'main objectives' and 'complementary objectives' (Brasil. Ministério da Marinha, 1998a, p. 3.1, 3.2). The complementary objectives refer to activities addressed in the PDN that are not core activities of the navy, but are considered important for 'national development', 'naval traditions' and 'public opinion', such as the navy's participation in 'national development', conservation of its 'historical and cultural heritage', and building of 'maritime awareness among all segments of society' (1998a, p. 3.2). The main objectives also differ in some points. It is stressed that the necessary readiness be compatible with regional conflicts (1998a, p. 3.1) or limited wars (1983b, p. 6). The continued efforts to project, build and modernise naval means in the country also remain a common objective. This includes the gradual nationalisation of materiel along with the other armed forces, whenever possible (1983b, p.6, 1998a, p.3.1).

A difference in the 1998 policy is the objective relating to the naval power's contribution to the country's foreign policy (Brasil. Ministério da Marinha, 1998a, p. 3.1), reinforcing the adequacy of naval diplomacy noted in the structural documents of section 3.1. A different objective refers to cooperation and joint development with navies of friendly nations, especially with countries from America and West Africa (1998a, p. 3.2). Lastly, there was the further objective of enlarging and enhancing operational integration with armed forces (1998a, p. 3.2).

Concerning 'guidelines', the 1998 naval policy provides a distinct approach, since it was formulated by the Navy Staff and approved by the then-Ministry of the Navy. These guidelines, then, were moved to the level of the head of sectors. Additionally, these sectorial guidelines (*Orientações Setoriais*, ORISET) were oriented not only by the above stated objectives, but also by a new set of orientations, called Navy Minister Guidelines (*Orientações Ministeriais*, ORIM) or Navy Commander Guidelines (*Orientações do Comandante da Marinha* – ORCOM) after 1999 (Brasil. Ministério da Marinha, 1998a, p. A–1). It is also highlighted that, analogous to the previous policies, the systematisation of these guidelines and their effect on the resulting actions and the Master Plan apparently remained the same (1998a,

p. A–1). At that moment, the high-level planning of the navy was already designed to have three phases: basic, preparation and estimate, and financial-administrative (Longo, 2002, p. 30). The first phase includes the PEM, the PBM (Navy Basic Policy; *Política Básica da Marinha*, in Portuguese), the ORIM or ORCOM, and ORISET (Longo, 2002, p. 30). It was shown that the formulation of a naval policy – and, to a certain extent, strategy, as will be seen – was beyond the accurate borders of specific documents. Although there was some centrality of the documents expressing the Brazilian naval policies – under slightly different labels – naval policies have been more generally, and likely still are, a systematisation that concern a group of interconnected documents. As the policies produced in the 1970s stated:

> Naval Policy [was conceptualized] as [a] system of principles and the general terms of its application that guide the organisation, development, maintenance, supply, training, and employment of the combatant power of the Navy. (1971, p. 6)

The 2003 naval policy, in turn, as the last of the series up to the end of the timeframe, in 2018, presented significant changes in the different designation, now as Basic Guidelines of the Navy (*Diretrizes Básicas da Marinha*, DirBaM), and in its structure, although the whole systematisation for naval policy and strategic planning seemed not to have changed significantly over the years, as PEM in 2002 suggests (Longo, 2002). The DirBaM came to be considered as groundwork for establishing the 'ensuing Guidelines, which should guide and condition the planning and related actions aimed at preparing and applying the Naval Power, in line with strategic needs identified' (Brasil. Marinha do Brasil, 2003, p. IV). In practical terms, that change meant that the newer document contained 'Guidelines' as opposed to the 'Objectives' presented in the previous one (Brasil. Ministério da Marinha, 1998a, p. III; Brasil. Marinha do Brasil, 2003, p. III). The rest of the contents remained the same in nature: 'Navy Mission', 'Conditioning Factors' and 'Resulting Actions' (1998a, p. III; 2003, p. IIII).

Regarding missions, the change was not in nature, since the legal framework remained basically the same, namely the 1988 Constitution, the PDN 1996, and the LC No. 97 of 1999. The policy opted to focus on the description of the navy's mission on the use of 'Naval Power' for 'Homeland Defence', stating a simpler mission than the previous one of 1998: 'Prepare and apply the Naval Power in order to contribute to the Defence of the Homeland' (Brasil. Marinha do Brasil, 2003, p. 1.2). The reason points to the fact that the constitutional mission of the navy essentially pertains to the concept of the application of naval power, and that other assignments came from subsequent legal documents (2003, p. 1.2) – notably, the cited LC. Thus, the natural inference from this mission, combined with the subsidiary assignments, either general or particular (explicitly addressed in the 2003 document) is that the navy, through the viewpoint of the Navy Leadership at that moment, in being able to do the most – manage traditional warfighting tasks – would be able to conduct the simpler subsidiary assignments.

Comparing the 1998 'objectives' with the 2003 'guidelines' there is no significant change of content (Brasil. Ministério da Marinha, 1998a, p. 3.1, 3.2; Brasil. Marinha do Brasil, 2003, p. 3.1–3.3). However, some new 'guidelines' are worth mentioning, since they speak to some conceptual approaches. Firstly, the role of supporting the country's foreign policy is reinforced, highlighting the need to enhance the capabilities of the naval power for doing so, in coordination with the Ministry of Foreign Affairs (1998a, p. 3.1; 2003, p. 3.1). Secondly, continuous efforts must be made regarding the 'execution of projects, construction and

modernisation of means in the country' (1998a, p. 3.1; 2003, p. 3.1); a quite permanent component of the strategy of means of the BN. Thirdly, aligned with the previous guidelines is the incentive to the 'progressive and selective nationalisation of materiel', if possible with the other armed forces (1998a, p. 3.1; 2003, p. 3.1). The fourth noteworthy guideline indicates the country's constant wish to interact with all actors in its surroundings as well as with experienced actors (2003, p. 3.2). It encourages cooperation and the execution of combined operations with 'friendly navies' from countries of South America and West Africa, and mainly with developed countries (2003, p. 3.2). Two main guidelines are relevant to this thesis and were not explicitly mentioned in the previous document. The first refers to 'extending the Navy's presence in the Amazon region' and the second to 'participating in peacekeeping and humanitarian operations, under the aegis of international organisms' (2003, p. 3.2). As noted above, these topics have become more frequent in Brazilian naval policies in recent years.

The 2003 DirBaM also establishes 'complementary guidelines' to refer to activities not directly linked to the core activity of the navy, as in the previous policy. These guidelines include 'national socio-economic and technological development', stimulating the 'maritime awareness' and preserving 'Brazilian Navy historical and cultural heritage' (Brasil. Marinha do Brasil, 2003, p. 3.3). Still focusing on the non-traditional activities of a warfighting navy, six out of seven guidelines include the following:

> […] e) to guide and control the Merchant Navy and associate activities in what matters to national defence;
> f) to contribute to the formulation of the National Maritime Policy;
> g) to contribute to the development of the National Policy for Marine Resources;
> h) to contribute to the execution of the Brazilian Antarctic Programme and to the National Policy for Antarctic Affairs;
> i) to provide safety of navigation; and
> j) to implement and monitor compliance with laws and regulations at sea and inland waters, in coordination with other responsible bodies, when necessary, due to specific competencies. (2003, p. 3.3)

It is noticeable that these additional guidelines clearly reinforce the subsidiary assignments listed in the LC No. 97/1999, more specifically the subparagraphs I, II, II, IV (Brasil. Presidência da República, 1999, Article 17). Therefore, although the mission in this policy version did not apparently give as equal weight as in the 1998 version, these guidelines compensate for this.

In terms of naval policies as a specific document, it may be said that until 2018, the 2003 DirBaM was the last edition. However, as also noted, Brazilian naval policy encompasses more than a specific document. Many elements have contributed to the systematisation of high-level planning of the navy, such as the PEM, the naval policies themselves with different denominations, the Master Plan, and others, like the ORIM, ORCOM and ORISET.

The strategies and doctrines to be analysed all together arguably have the power to convey the 'big picture' of the thought with some practice element, which, as manifestations, may contribute to the formulation of how Brazilian naval strategic thinking has been characterised over the timeframe. It is worth emphasising that this type of thought, seen in naval documents, is different from all forms of ideas published as academic works. It intends to establish the basis for the development of the naval institution, structurally, administratively

and operationally. In that sense, it is an official thought, which aims to lead to an official practice, which will be brought about by the naval force.

Naval Strategies

The purpose of this section is to understand how naval strategies as part of naval documents – within the mix of policies-strategies-doctrines – can serve as a manifestation of Brazil's maritime strategy and its naval strategic thinking, under the reasoning of risks-opportunities-ends-ways-means.

To date (2019), no specific open documents have addressed naval strategy in Brazil. The sources available include the BN's annual reports (*Relatório Anual da Marinha*, in Portuguese) produced before and during the timeframe, especially before and up to the creation of the MoD. What they occasionally offered was a strategy statement, called the 'Brazilian naval strategy', which was made available in these reports until 1996. After that period, other sources only allowed inferences about naval strategy itself. The systematisation of high-level planning of the Navy through naval policies suggests that strategies, or some sort of strategic analysis, have been part of the PEM, which has usually been classified and has also presented some regularity over the years.

The statements, as will be seen, sometimes were more a mix of situation analysis and future possibilities than a 'pure' naval strategy in the sense of a rigid employment of naval means to achieve political goals. However, this mix might arguably have led to such strategies, formal or not. Moreover, for a navy that does not have a tradition of projecting its power offensively abroad, compared to major naval powers – the BN is more defence-focused – strategy and, more specifically, naval strategy might assume a broader meaning, as previously suggested. In other words, the concentration of Brazilian naval activities in times of peace – obviously never dismissing the importance of preparedness for conflict – might explain the way naval strategy is usually thought and formulated in the BN. This also serves to explain the perceived approach in the few strategy statements available within the reports.

Additionally, while the BN's strategy formulation has usually been classified, thus not permitting scholarly scrutiny, the related documents, such as the annual reports, have gradually become declassified and been made available in Brazilian archives. The further step of an open publication of naval strategies has not been enacted yet, while, in the case of national defence documents, as seen in section 3.1.3, this is becoming more frequent. These recent declaratory defence documents have demonstrated an increased sense of communication from the armed forces towards segments of society and other audiences, also conveying how essential the navy and the sea are to the country, and somewhat compensating for any lack of open naval strategies.

Regarding the naval strategies topic, the three most relevant periods of time will be addressed. As in the case of naval policies, firstly the following sections will offer a brief overview of the statements produced before the timeframe in order to identify any trend. These were issued in the annual reports from 1979 to 1983, and presented similar ways of formulating analysis and conclusions, indicating the strategic leadership mindset of that period. After this,

the group of 1985-1988 statements will be assessed, and finally the group of 1992-1996 statements, which will allow comparisons among them.

1979-1983 period

The statements of the 1979-1983 period usually addressed the BN's general posture before the assessment of the 'South American' and domestic contexts on one side, and of the 'Global Scale' context on the other. Regarding the South American context, the relevant topics to Brazil and its navy involved disputes between Argentina and Chile; a gradual improvement of the relationship between Brazil, Argentina and Paraguay; the Falklands War in 1982; the acquisition of naval platforms by South American countries, especially Argentina; disputes among revolutionary leftist groups in Central America, some involving the United States; and the Argentinean nuclear programme. The domestic context usually emphasised two aspects: the commissioning of naval means as part of the implementation of the navy procurement programme; and the economic and energy crises affecting the shipbuilding and maritime transport industries.

Thus, based on the South American and domestic contexts in this period, the naval strategy statement began in 1979 as follows:

> The [purpose of] Brazilian naval strategy [...] continues to be to provide the naval power with conditions of readiness and operational efficiency that inspire credibility, in order to contribute […] to the use of dissuasive methods capable of avoiding armed conflicts involving Brazil. (Brasil. Ministério da Marinha, 1979c, p.II.25)

In the 1980 version, the specific purpose of providing foreign policy with adequate support was added (Brasil. Ministério da Marinha, 1980b, p.II.35), and in 1981 the navy's lack of on-board strike aviation and dependence on land-based surveillance aviation were emphasised (Brasil. Ministério da Marinha, 1981b, p.VII.22). In this regard, there were prospects for more integration with the air force, including the use of the aircraft carrier *Minas Gerais* (1981b, p.VII.22). Meanwhile, considering the reduced-threat scenario and the poor resource allocation (1981b, p. VII.22), a commitment from the government was sought for a procurement programme to provide a modest but steady budget, prioritising the nationalisation agenda (1981b, pp. VII.22-VII.23). While the 1982 version repeated these concerns (Brasil. Ministério da Marinha, 1982, p.VII.25), the 1983 version differed somewhat, highlighting concerns about revolutionary tensions in the north of South America, which prompted the annual wargame called OPERATLAN (1983 edition), oriented towards that region (Brasil. Ministério da Marinha, 1983c, p.III.9). It also prompted the ongoing arrangements of the BN's execution of naval manoeuvres in the Caribbean Sea with the navies of Colombia and Venezuela (1983c, p.III.9), a natural movement in these last moments of the Cold War in the South American region. Negotiations between Brazil and Peru concerning navigation on the Amazon River basin were also mentioned, generating expectations about the prospect of decreasing conflict in the riverine operational area (1983c, p.III.9).

Considering the Global Scale context, the assessed topics included the higher probability of limited wars compared to generalised ones, as mentioned in previous naval policies; the 1979 Iranian Revolution and Iran-Iraq war (1980-1988), which affected the

world's oil supply; Ronald Reagan's election in the United States, which led to the strengthening of the United States' military power; and the world economic crisis, which negatively affected world trade and the merchant navies (Brasil. Ministério da Marinha, 1983c, p.III.9-III.10). Thus, regarding the Global Scale context, the naval strategy statement of the period, beginning in 1979, went as follows:

> A war between the US and USSR blocs, whose probability is small, would lead Brazil to join the Western bloc's alliance if its participation in the conflict was necessary. Admittedly, the limited Brazilian Naval Power cannot intend to stand alone, even in a restricted geographic area, against the immense Naval Power of the USSR. Thus, in a scenario of generalized war, it would be up to the Brazilian Navy to integrate itself in the effort of nations with great naval power, in a similar way it participated in the two World Wars. (Brasil. Ministério da Marinha, 1979c, p.II.26)

In the above circumstances, the naval strategy up to 1983 associated the possible naval power with some topics. One was Brazilian maritime interests in the South Atlantic and beyond, given its increasing maritime trade with more distant and unstable regions, like the Persian Gulf, Mozambique Channel and Red Sea (Brasil. Ministério da Marinha, 1980b, p.II.36-II.37), although the limitation in attending to these distant interests is recognised. Other topics that influenced the naval strategy statements in this period involved the increase of Brazil's oil production in offshore platforms; Brazil's interests in expanding its economy towards Africa (Brasil. Ministério da Marinha, 1981b, p.VII.25-VII.26); and, if needed, Brazil embracing an inter-allied effort, even in the South Atlantic area, with the capitalist and Organisation of American States (OAS) blocs under the East-West confrontation (Brasil. Ministério da Marinha, 1982, p.VII.27, 1983c, p.III.11). As in the South American and domestic assessments, the 1984 Global Scale assessment was incorporated into the PEM, whose content is not available (Brasil. Ministério da Marinha, 1984, p.VII.40).

1985-1988 period

Compared to the pre-timeframe group of naval strategy statements, there was a noticeable change in the group of documents produced between 1985 and 1988, within the first part of the timeframe and before the end of the Cold War. In this period, as will be seen, although there was some assessment in terms of geographical scale, a more conceptual approach was adopted, connecting politics [policies] to a desired force structure (except in 1988) when a defined strategic employment was put forward.

The first part of the Brazilian naval strategy statement hinges on Brazilian interests at sea. The naval strategy is said 'to preserve and promote' them and, in doing so, will 'contribute to the achievement of the national objectives' (Brasil. Ministério da Marinha, 1985, p.I.31, 1986, p.I.21, 1987, p.I.40, 1988, p.I.27-I.28). Brazilian interests at sea, stemming from the national reality and international context, can be identified in the activities that favour the 'resumption of economic growth', 'reduction of external vulnerabilities in the technological and financial fields', 'political and social stability', 'and the strengthening of national security' (1985, p.I.31, 1986, p.I.21, 1987, p.I.40, 1988, p.I.28), and are defined as follows:

> – development of foreign trade by sea and cabotage, for which the free use of sea lines of communication and security of our Merchant Marine are essential;
> – exploitation of marine resources and development of other coastal activities that contribute to the growth of the national economy, for which it is essential to maintain the integrity of assets constituted by material means and facilities, and the protection of citizens involved in such activities;
> – preservation of international peace and security, especially in the South Atlantic, as an essential factor in the configuration of a scenario conducive to the development and expansion of Brazil's freedom of political manoeuvre in the international arena. (Brasil. Ministério da Marinha, 1985, p.I.31-I.32, 1986, p.I.21-I.22, 1987, p.I.40-I.41, 1988, p.I.28)

As already evidenced in many previous parts of the strategy statement and naval policies, many issues tend to appear regularly, such as concerns with South Atlantic stability and security, allowing for foreign trade by sea, and Brazil's political projection, as well as the exploitation of marine resources and other activities, among which are included all interactions between the navy and scientific community.

The second part takes into account the international context and related adverse factors that 'contribute to forge current or latent conflict situations, whose implications already affect or may shape direct threats to the promotion of Brazilian interests in the future' (Brasil. Ministério da Marinha, 1985, p.I.32, 1986, p.I.22, 1987, p.I.41, 1988, p.I.29). These factors are summarised in three categories:

> – the projections of the East–West confrontation in the world, and in particular in Central America and Southwest Africa, areas close to Brazil, engendering international tensions capable of evolving into larger conflicts;
> – the difficult economic-financial situation that most Third World countries are experiencing, accentuated by the effect of historical and structural distortions and often dramatized by subversion and terrorism, contributing to the configuration of a chronic framework of political and social instability;
> – the use of force for the settlement of territorial or border disputes, which may overflow into the Brazilian territory, undermining our sovereignty or even allowing the presence of extra continental powers in the South Atlantic, such as in the Falklands (Malvinas) War. (Brasil. Ministério da Marinha, 1985, p.I.32, 1986, p.I.22, 1987, p.I.41, 1988, p.I.29)

As indicated, although the East-West confrontation is cited, this in itself seems to offer no cause for concern, which contrasts with its reflections on Central America and Southwest Africa. These areas are described in terms of 'subversion and terrorism', since former conflicts as well as internal concerns had then involved combat against leftist groups in Brazil. The economic difficulties are also described as persistent for Third World countries as a whole, affecting any better prospects of armament build-up. Lastly, after the Falklands War, there was a concern regarding nuclear extra regional powers, which at that moment was seen to lead to Brazil's initiatives such as the Zone of Peace and Cooperation of the South Atlantic, approved in October 1986 in the United Nations General Assembly.

Considering Brazil's interests at sea and the mentioned adverse factors shaping high-level objectives with risks and opportunities, the Brazilian naval strategy statement of the 1985–1988 period entailed the two interconnected issues of employment and the preparation

of the Naval Force (Brasil. Ministério da Marinha, 1985, p.I.32-I.33, 1986, p.I.22, 1987, p.I.41, 1988, p.I.29). Employment in peacetime is related to foreign policy, with the focus on Brazilian warships visiting foreign ports, undertaking combined operations with other navies, supporting navies less developed than the BN, implementing a strategic action of presence and acting in parallel with diplomatic action (1985, p.I.33, 1986, p.I.23, 1987, p.I.42, 1988, p.I.29). In terms of conflicts, the Navy Staff, despite the limited deterrence capability of Brazil's naval power (1985, p.I.33, 1986, p.I.23, 1987, p.I.42, 1988, p.I.29), considered employment related to the following 'strategic objectives', allegedly permitting Brazil's adjustment to distinct types of conflicts:

> – maintenance of the vital waterway transportation flow for the country;
> – maintenance of the integrity of coastal installations;
> – destruction of relevant physical targets contributing to the enemy's war effort;
> – destruction of the enemy's maritime traffic. (Brasil. Ministério da Marinha, 1985, p.I.33-I.34, 1986, p.I.23-I.24, 1987, p.I.43, 1988, p.I.30)

These, in turn, would lead to 'strategic parameters', with both defensive and offensive components (Brasil. Ministério da Marinha, 1985, p.I.34, 1986, p.I.24, 1987, p.I.43, 1988, p.I.30). Thus, a certain quantity of means was assessed as necessary to compose two naval forces: 'one for protecting important convoys' and 'the other for engaging the enemy force' (1985, p.I.34-I.35, 1986, p.I.24-I.25, 1987, p.I.43-I.44, 1988, p.I.30), although it was acknowledged that, to achieve these components, a substantial increase in Brazilian naval power would be necessary (1985, p.I.33-I.34, 1986, p.I.23-I.24, 1987, p.I.43, 1988, p.I.30). Additionally, the necessity of extra means was proposed for the following activities: protection of maritime traffic in focal areas; close coastal defence; sea denial via mining operations; and submarine strike operations (1985, p.I.35, 1986, p.I.25, 1987, p.I.44, 1988, p.I.32). Furthermore, the need for naval aviation, amphibious means (1985, p.I.35, 1986, p.I.25, 1987, p.I.44, 1988, p.I.32) and means to operate in polar areas, owing to Brazilian interests in the Antarctic region (1986, p.I.25, 1987, p.I.44, 1988, p.I.32), were also stressed.

These 'strategic parameters' were then discussed in terms of the materiel preparedness of the Brazilian naval power, i.e., its force structure re-equipping (Brasil. Ministério da Marinha, 1985, p.I.35, 1986, p.I.25, 1987, p.I.44). Thus, the procurement programme in the late 1980s envisaged the following force structure, which will be compared to the figures in the naval force section (3.2.2):

> – two (2) strike or sea control aircraft carriers: one for the force intended to intercept and engage the enemy's main force (or for possible projection of power over land); and the other for the protection of selected maritime traffic (mobile sea control);
> – eight (8) frigates and sixteen (16) corvettes: to allow the simultaneous formation of two escort groups for the two naval forces;
> – two (2) logistical support ships, one (1) floating docks, and one (1) tender to provide mobile logistical support;
> – fourteen (14) mine-sweeper vessels and three (3) mine-hunter vessels to carry out mine countermeasures and keep ports open in Brazil;
> – twelve (12) attack submarines for the establishment of patrol areas along the major ports and bases of the enemy, thus contributing to deny it the use of the sea;

> – one [(1)] landing ship dock, two (2) landing ships tank, two (2) assault cargo transport ships, and two (2) assault troop transport ships to compose the means of transport foreseen for the possible projection of naval power on enemy territory, as well as equipment for the landing force;
> – fourteen (14) patrol ships, for surveillance of Brazilian jurisdictional areas and coastal defence; and
> – eight (8) patrol ships for employment in riverine environments (Amazon [region] and Paraguay river). (Brasil. Ministério da Marinha, 1985, p.I.35-I.36, 1986, p.I.25-I.26, 1987, p.I.44-I.45)

The reports of this period that contain these naval strategy statements also put emphasis on the nationalisation of means and on the stimulus for national research and development (Brasil. Ministério da Marinha, 1985, p.I.36, 1986, p.I.26, 1987, p.I.45, 1988, p.I.32), which is aligned to naval policies and future defence documents, as seen previously in this section and in section 3.1.3. Notwithstanding, given that the economic-financial difficulties affected better prospects for programme execution, partial plans of procurement, encompassing this period until the beginning of the 21st century, were provided in order to prioritise the means to be acquired (1985, p.I.36-I.37, 1986, p.I.26, 1987, p.I.45, 1988, p.I.32) . This approach appears to have been institutionalised at least until the first decade of the 21st century, with the Navy Re-equipment Programme (*Programa de Reaparelhamento da Marinha*, PRM) often being divided into Partial Plans of Procurement (*Planos Parciais de Obtenção*, PPOM), to allow for some degree of effective acquisition (Longo, 2002, p.33).

It is also worth mentioning that the navy leaders at the beginning of the timeframe expected the cited force structure to be the most feasible under those circumstances, although not the ideal, considering 'the growing projection of Brazil in the international arena and its reasonable level of economic development' (Brasil. Ministério da Marinha, 1985, p.I.37, 1986, p.I.26-I.27, 1987, p.I.46, 1988, p.I.32). That force structure, therefore, would be considered in studies of the Navy Staff as a model to underpin the Brazilian naval strategy (1985, p.I.37, 1986, p.I.27, 1987, p.I.46, 1988, p.I.32).

In the 1989 report, the same strategic objectives are maintained, but its strategic statement is not as conclusive as the previous ones in terms of linking the assessment to a force structure perspective. However, it can be expected that the practices outlined in the previous statements have continued. In the 1990 and 1991 reports, the Brazilian naval strategy – in terms of its conceptual (designed strategic thought) and practical (ensuing force structure) aspects – is not really addressed. Rather, these two aspects are respectively referred to through the lens of the two already cited important documents: the PEM and PRM (Brasil. Ministério da Marinha, 1990, p.23, 1991, pp.31-32). This makes it clear that any deeper naval strategic consideration is part of the former, with consequences for the latter.

1992-1996 period

From 1992 to 1996, there was still the elaboration of the so-called 'Brazilian naval strategy' within the mentioned reports, although the tendency, as stated, appeared to be the PEM increasingly internalising any deeper strategic assessment. This is also clear when the coverage of the subject matter within each report gradually diminishes during this period (1992:

10 pages; 1993: six pages; 1994: two pages; 1995: not available; 1996: two pages), and when the reports from 1997 onwards (1997, 1998, 1999) change their approach, dismissing the item of 'Brazilian naval strategy' and addressing the objectives established by the naval policies instead (PBM - *Política Básica da Marinha*), studied in the previous section (the 1996 report, as a transition, combines both approaches). This tendency seemingly continued in the annual reports from 2004 onwards, when, according to the Navy Staff, there was still a lack of any specific naval strategy statement (Estado-Maior da Armada, 2018).

It is worth noting that this group of naval strategy statements started accommodating the implications of the end of the Cold War. Although Brazil did not suffer the direct effects of the War's denouement, as indicated in section 1.3.1, the main concerns, including military, were related to its indirect effects. Firstly, the issues perceived as most threatening were related to regional conflicts, since the underlying stabilising factor of the East-West contest had vanished. In the 1992 and 1993 assessments, for instance, the subjects of 'territorial disputes', 'ideological terrorism' and 'drug trafficking' occurring in neighbouring countries are seen as sources of great concern, in addition to conflicts happening in former Soviet territories as well as in young African nations due to ethnic, religious and ideological differences (Brasil. Ministério da Marinha, 1992, p.I.21, 1993, p.2). Thus, fears arose that internal clashes would become regional conflicts (Brasil. Ministério da Marinha, 1993, p.2). Secondly, the assessments also indicated concerns with the restructuring of the world economy, leading to the intensification of trade rivalries and market disputes with developed countries, especially the United States, free from competition with the former Union of Soviet Socialist Republics, having more leverage to rebuild the new world order under their own conveniences (Brasil. Ministério da Marinha, 1992, p.I.22, 1993, p.2, 1994, p.I.38). Thirdly, the issue was the risk of disputes for the control and exploration of natural resources, indispensable for the world economy, such as oil, which reinforced market rivalries (Brasil. Ministério da Marinha, 1992, p.I.22).

In order to add context to the economic realm, the issue of how the relationship with powerful countries unfolded into technological and security issues was also assessed. While naval leaders stated that developing countries – Brazil included – searched for a more autonomous position (Brasil. Ministério da Marinha, 1994, p.I.38), the assessment contended that 'large external debts have de-capitalized these nations, eroded North-South relations' (Brasil. Ministério da Marinha, 1992, p.I.22), and contributed to the deepening of the technological gap, frustrating developing countries (1992, p.I.22). Furthermore, the assessments appeared critical of the 'renewed interventionist disposition of great powers', highlighting a 'duty of interference' supported by the concept of a 'relative sovereignty', which added instability and uncertainty to a 'scenario in transition' from the end of the Cold War onwards (1992, p.I.22). This also clearly refers to the Gulf War of 1991.

Given this framework, the Brazilian naval strategy is asserted here to be a tool to support credibility, independence of options and freedom of political manoeuvre for the government to conduct the process of achieving national objectives (Brasil. Ministério da Marinha, 1992, p.I.23). It is explicitly stated that this process is based on the foundations and objectives of the Constitution of 1988 and considers Brazil to be overcoming its social and economic issues (1992, p.I.23). The Brazilian naval strategy, regarded as subordinate to the

national policy, is mentioned as an enabler of this political process, resisting pressures coming from the rest of the world through the seas (1992, p.I.23).

The 1992 assessment is slightly broader than the subsequent ones, as mentioned. As for risks and perceived threats, it is stressed that antagonisms then were not clear or accurate (Brasil. Ministério da Marinha, 1992, p.I.24). Brazil, although not crippled by any 'suffocating or inescapable antagonism', remained cautious because of the conditions of 'instability' and 'uncertainty' (1992, p.I.24). The risks evaluated included the possibility of 'pressures or hostile political attitudes' from other states; economic pressure or pressure of a military nature; and pressure over the 'Amazon management' or restrictions for developing 'sensitive technology' (1992, p.I.24). The military threat through the sea, however deemed unlikely, was still considered. The existence of a credible naval power was expected to further decrease this likelihood (1992, p.I.24). In this sense, the types of operations and proceedings expected from an adversary were:

> Show of force or declaration of intent to use it; sending units to waters under Brazilian jurisdiction for the purpose of intimidation; confiscation or selective, punctual and controlled aggression to the Brazilian patrimony (platforms, merchant ships); naval blockades; landing of troops or commandos; and, in the last case, attacks on assets located in jurisdictional waters or specific points in Brazilian territory. (Brasil. Ministério da Marinha, 1992, p.I.25)

All this was summarised in one expression: 'military intervention' to fulfil political objectives (Brasil. Ministério da Marinha, 1992, p.I.25). Thus, the resulting general orientation of the naval strategy was a 'defensive mode of action', but in an active way against any idea of stationary defence (1992, p.I.25). This orientation of 'active defence' incorporated two main components: 'distant defence capability' – or 'advanced interdiction' – and 'close littoral defence' (Brasil. Ministério da Marinha, 1992, p.I.26). In the case of 'advanced interdiction', the available naval and air forces would be 'opposed to the free passage of the threat so as to neutralize it as far as possible from littoral, well before any strike could take place' (1992, p.I.26). Even considering unfavourable forces and a determined adversary, it would be expected that the interdiction would at least unsettle the opponent's transit and contribute to wearing the aggressor out (1992, p.I.26). It is clearly stated that this type of strategy is linked to a sea denial stance, primarily through the use of submarines. In this sense, this approach justifies the building of the nuclear-powered submarine, which explains the navy's persistence in implementing the nuclear programme (Brasil. Ministério da Marinha, 1992, p.I.27). Furthermore, the maritime air patrol based on land is seen as indispensable and deemed important to be under the control of the navy (1992, p.I.26-I.27) . The amphibious projection capability is also considered for executing special operations to contribute to wearing the enemy out (1992, p.I.27) .

The second component – close littoral defence – is to be used at sea in more critical areas or areas indispensable for securing high-priority objectives (Brasil. Ministério da Marinha, 1992, p.I.27). It could be considered either as a second line of defence or as a complement (1992, p.I.27-I.28). The means contemplated included submarines and combatant surface ships, such as corvettes, which were considered as priorities in the then procurement programme of the navy, and frigates, both with their own onboard helicopters (1992, p.I.28).

The close littoral defence entails continuous surveillance and presence at sea, with naval activities preceded by patrol in critical and focal areas in peacetime (1992, p.I.28). Mine warfare is also provided as a potential approach in strategic points of littoral defence, together with the use of marines, located and moved between points of the shore according to the situation (1992, p.I.28). It is also asserted that the aircraft carrier *Minas Gerais* would be used, depending on both the conditions of the theatre of operations and the characteristics of the aggressor's naval force (1992, p.I.28-I.29) .

Other approaches in the naval strategy regarding the employment of the naval force for peacetime are also envisaged, such as visiting foreign ports, safety at sea and safety and security of shipping (Brasil. Ministério da Marinha, 1992, p.I.29), covering the whole spectrum of conflict. Moreover, there is a tendency to gravitate towards a discussion of Brazilian participation in the United Nations peacekeeping forces (1992, p.I.29). As other previous documents stated, the navy can also act internally, contributing to the preservation of law and order (1992, p.I.29), as stipulated in the Constitution (section 3.1.1).

To sum up, the Brazilian naval strategy in the 1992 statement is:

> [..] designed so that the Brazilian naval power is able:
> – to deter aggressions or to interdict possible attempts of intervention; and
> – to exercise close control of the coastal maritime areas, selectively or to the extent permitted by the means available to it.
> It is thus adjusted to the Brazilian reality and recognizes the external factors of disruption that can evolve into the configuration of antagonisms and threats to the consummation of the national project. (Brasil. Ministério da Marinha, 1992, p.I.29, I.30)

In the case of the 1993 assessment, the main subject is the perceived lack of an elaborated strategic vision (Brasil. Ministério da Marinha, 1993, p.2). Complaints are made about issues that have allegedly hampered more effective naval strategic planning (Brasil. Ministério da Marinha, 1993, p. 3). The main issue is the lack of superior guidelines, owing to the withdrawal of the National Strategic Concept (*Conceito Estratégico Nacional* – CEN) by the government in 1991, with no replacement (1993, p. 3). This gap would have impelled the armed forces to infer many elements needed for their planning in a flawed process that 'tended to represent the particular vision of each Force' (1993, p. 3). In fact, this assessment converges with the cited declaration (section 3.1.3) of the Brazilian Minister of Aeronautics, Brigadier Lôbo, a member of President Cardoso's administration, on the eve of the PDN 1996. He stated that each force had its own defence policy, which was not appropriate for a joint defence. The 1994 assessment points out a similar issue when it exposes the fact that 'there was not a clear orientation towards the intended way of the country's insertion in the new international context', combined with the existing political, economic and social difficulties already affecting the execution of a medium and long-term governmental planning (Brasil. Ministério da Marinha, 1994, p. I.38). Notwithstanding, the second half of the timeframe showed some consolidation of national defence documents, providing some high-level alignment, despite natural difficulties related to internal relationships just after the creation of the MoD in 1999.

Returning to the 1993 assessment, the limitations of the Navy's strategic planning, perceived as a result of the new challenges and uncertainties of the then brand new post-Cold War era, prompted the Brazilian naval leaders to seek a new methodological approach to

achieve better outcome in this area (Brasil. Ministério da Marinha, 1993, pp. 3–4). This new planning methodology needed to be able to provide 'rational and solid bases for decisions regarding the assignments of the Naval Power and the diversification and intensity of the Navy engagement in subsidiary activities' (1993, p.3). In this way, it would be able both to seize opportunities created by domestic and international scenarios, and to present the following desired features, said to be inexistent or limited in the previous PEMs:

> coherence with the needs and wishes of society; provision of systematic update; technical-prospective vision; effective scaling up of issues inherent to nationalization; emphasis and greater precision in strategic reasoning for the South Atlantic; and doctrinal correction. (Brasil. Ministério da Marinha, 1993, p. 4)

Therefore, those mentions of 'subsidiary activities' and the 'needs and wishes of society', along with other previous indications, suggest the Navy's apparent gradual shift towards accepting more openly a commitment to subsidiary and other similar peacetime activities.

The Brazilian naval strategy, in turn, states that it continues to be 'essentially defensive', inasmuch as the national objectives are judged to be 'conservative', with their processes oriented wholly towards 'national territory' (Brasil. Ministério da Marinha, 1993, p. 4). By the same token, the ideas of 'deterrence' and 'avoiding war' are also related to the 'conservative posture' (1993, pp.4–5).

Echoing previous statements, the South Atlantic was highlighted as a critical area for the Brazilian naval power (Brasil. Ministério da Marinha, 1993, p. 5). At the same time, hypotheses of war, contemplated as 'strategic objectives', took into account the 'maintenance of the flow of vital maritime transport to the country' as well as the 'maintenance of the integrity of coastal and marine installations' (1993, p.5), as in the strategic statements of the 1985-1988 period. Similarly, the previous concepts of 'advanced interdiction' and 'close littoral defence' are stressed again in the 1993 report. It is stated that they need to be developed so that they can be operationalised, inserted in the PEM and particularised to each hypothesis of crisis and war (1993, p. 5). As before, other distinct approaches 'especially important in the peacetime scenario' are highlighted, such as acting in the riverine environment and presence in domestic and foreign ports (1993, p. 5). Additionally, the increasingly more likely Brazilian participation in UN peacekeeping forces should occur in a more effective way than before. The associated risks of such endeavours are also mentioned, including undesired strains and the loss of lives (1993, p.6). This tendency gradually shows the increasing grade of diversification of Brazil's maritime strategy, as hypothesised in chapter 1.

The 1994 assessment reinforces the points made in the 1993 one about the new post-Cold War order and its implications for the powerful nations' macro or great strategies, prioritising the economic rather than political and military components, with Brazil as a developing nation continuing its search for autonomy (Brasil. Ministério da Marinha, 1994, p. I.38). The 1995 Brazilian naval strategy, as mentioned, was classified and not made available, and the 1996 strategy was twofold. One part mentioned the need to consider, in the formulation of the new PEM, the ongoing transformations of the international scenario; the first PDN, published in 1996; and the use of scientific methodology which would consider a 20-year

scenario, instead of the 10-year vision. Another part focused on the objectives of the PBM, already addressed in the naval policies section. The rest of the reports available – 1997, 1998 and 1999 – as mentioned, do not use the approach of Brazilian naval strategy statements, but the objectives as stated in the naval policies from 1996 onwards (1997, 16 objectives; 1998 and 1999, the same 18 objectives).

As a conclusion of this section, although the naval strategy statements comprise only the period up to the creation of the MoD, they provide a consistent idea of the strategic thinking transition through the last decade of the Cold War and the first decade of the post-Cold War era.

In the period from 1979 to 1983, the predominant focus was on analysing domestic, regional and global contexts so that strategic elements with potential to shape the naval force structure could be extracted.

In the 1985-1988 period, the geographic contexts remained, but there was a growing concern about, as mentioned, linking policies to a desired force structure with a defined strategic employment. This linking took into account Brazil's interests at sea (foreign trade by sea and cabotage, marine resources, and international peace and security), the international context and related adverse factors (spillover effect of East-West confrontation in Latin America and West African regions, the economic and financial situation, and territorial and border disputes affecting Brazilian borders, for instance). The resulting analysis led to two types of force, as described above. The first addresses, in a defensive way, the strategic objectives of the vital sea lines of communication for the country and the integrity of coastal installations, while the second addresses, in an offensive way, the strategic objectives of the enemy's relevant physical targets and the enemy's maritime traffic.

In the 1992-1996 period, as cited, the naval strategy statements started to accommodate the post-Cold War context, reinforcing the subject matters of the 1985-1988 period, related, for instance, to regional conflicts linked to issues like territorial disputes, ideological terrorism and drug trafficking; the restructuring of the world economy; and the exploitation of natural resources, such as offshore oil, from which Brazil was becoming gradually richer. All this prompted an analysis that led to a naval strategy with a so-called active defensive posture with two components, as mentioned: a) 'advanced interdiction' – neutralising threats as far as possible from Brazil's shores; and b) 'close littoral defence' – using the sea to protect areas indispensable for securing high-priority objectives.

The post-Cold War era was characterised by other approaches in the naval strategy regarding peacetime employment, such as participation in UN peacekeeping forces, preservation of domestic law and order, visiting foreign ports, and safety and security at sea. These and other subsidiary assignments, along with an essentially defensive naval strategy, prompted the naval leaders of the mid-1990s to seek a new methodological approach to achieve a better strategic planning of the navy and to indicate a growing acceptance of a more multipurpose navy with a varied array of peacetime activities. In this sense, these naval strategy statements along with their respective naval policies represent the manifestation of Brazil's naval strategic thinking, which will be complemented by the analysis of the naval doctrines in the next section, composing all naval documents. At the same time, this increasingly multipurpose Navy supports this thesis’s argument about the need for a diverse mix of concepts

– expressed in the five maritime strategy perspectives – that go beyond traditional approaches to explain Brazil's maritime strategy in the current century.

Naval Doctrines

This naval documents section focuses on primary sources to identify thought and practice elements under the first maritime strategy perspective (section 1.5.2), thus unveiling manifestations of naval strategic thinking. Firstly, naval policies were examined from the period before and through this thesis's timeframe. Then, the naval strategy statements available from the navy archives were addressed. They generally provided the 'why' and 'how' of using the naval force – not only in cases of conflict, but increasingly also in the execution of peacetime duties. In this section, naval doctrines – perhaps the lower step in the ladder after policies and strategies – will be explored, before force structure, in the next section. In fact, under the first maritime strategy perspective, going from policies through strategies and doctrines to force structure, we are gradually moving from the thought to the practice level, in an attempt to cover as many levels as necessary to characterise as accurately as possible Brazilian maritime strategy.

In relation to doctrines, a pattern of forming groups is followed, similar to policies and strategies. Two groups are used: one of the editions from the period preceding our timeframe – 1979, 1981, 1983 – and one of the editions over the timeframe – 1997, 2004, 2014, 2017. The reason is the same as for naval policies: to observe tendencies prior to and during the timeframe, which arguably allows for a better evaluation of our research topic. Analysing and comparing their expressed purposes and contents will arguably expose links to the policies and strategies of the correspondent periods. Additionally, that set of doctrines will help explain the activities the naval force has been undertaking over time, oriented by distinct versions of the Navy's missions, which are closer to the practice level.

Till (2013) reminds us that, unlike armies, navies are usually 'war[y] about excessive conceptualization and prescriptive doctrine', since this could limit their room to manoeuvre (2013, pp.45–46). This may help explain why the BN's primary focus has been on publishing more basic versions of doctrine documents, not providing a more detailed, prescriptive approach. The title of nearly all seven editions examined, in this nearly 40-year span, has been Basic Doctrine of the Navy (*Doutrina Básica da Marinha*, DBM), with the word 'basic' speaking for itself. The exception is the current 2017 version, titled Naval Military Doctrine (*Doutrina Militar Naval*), although it maintains the same basic approach within its content (Brasil. Estado-Maior da Armada, 2017, p. IX).

Specific forces below the Command of Naval Operations (*Comando de Operações Navais* – four-star admiral) or the Command-in-Chief of the Fleet (*Comando-em-Chefe da Esquadra* – three-star admiral), such as the Surface Force, Submarines Force, Naval Aviation Force, and FFE (respectively *Força de Superfície*, *Força de Submarinos*, *Força Aeronaval*, and *Força de Fuzileiros da Esquadra* – led by two-star admirals, except for the latter, a three-star marine admiral), develop more specific doctrinal tactics and procedures. They usually

formulate, test, and formalise these, as mentioned by Admiral Guimarães Carvalho (personal communication, March 29, 2019).[92]

It can be further stated that what those naval doctrines seem to show at the higher level is usually what they are made for: to be authoritative in establishing a 'starting point and a sense of direction' (Till, 2018, p. 69).

1979, 1981, 1983

The first group of doctrines, from the background period, encompasses a shorter time span – 1979, 1981, and 1983. Thus, compared to the second one, which covers a larger timespan, it is expected to show fewer differences. In fact, in terms of the list of contents, there are nearly no distinctions, just some changes in description. The introduction in each doctrine version discusses the purpose, general sources, summarised description, architectural context in terms of documents, and the main modifications. The contents of these documents are described as follows:

> […] is made up of a set of concepts, principles and norms designed to guide the preparation and employment of the Navy, with regard to the military component of its Mission and some subsidiary assignments of an operational nature. (Brasil. Ministério da Marinha, 1979a, p. XIII, 1981a, p. XIII, 1983a, p. XIII)

They refer to the fields of 'strategy, operations and organisation, not descending to the tactical doctrinal procedures' (Brasil. Ministério da Marinha, 1979a, p. XIII, 1981a, p. XIII, 1983a, p. XIII). Regarding sources, as well as influential and contextual factors, they are supposedly influenced by those related to maritime power – in the Brazilian sense, as already noted – especially political, military and technological concepts (1979a, p.XIII, 1981a, p.XIII, 1983a, p.XIII). At the same time, they are allegedly compatible with the concepts of national power, national security, and national objectives, as well as with high-level governmental and military planning systematisation, in agreement with other armed forces (1979a, p.XIII, 1981a, p.XIII, 1983a, p.XIII).

In the specific case of the Navy, these doctrines

> [were] elaborated taking into account the injunctions of employment of the Navy along with the other Services, reason by which many doctrinal precepts established […] [there] refer to activities of strategic and operational level involving the Navy with those Forces. (Brasil. Ministério da Marinha, 1979a, p. XIV, 1981a, p. XIV, 1983a, p. XIV)

The contents of these early editions explain 'Basic concepts on military power', 'Maritime Power and Naval Power', 'The naval warfare', 'Naval warfare operations', 'The Navy on a non-maritime theatre', 'The Navy in peacetime', and 'Principles of war' (Brasil. Minestério da Marinha, 1979a, pp. XIV–XV, 1981a, p. XIV, 1983a, p. XIV). The influential character of these basic doctrines is evident when they claim to serve as a basis for:

> the instruction and training of the Navy, […] its materiel readiness, […] the elaboration of other documents concerning preparation and employment of the Navy, […] the

[92] Admiral Guimarães Carvalho was former Commander of the Navy (2003–2006).

> relationship of the Navy with other Single Forces, with the Armed Forces General-Staff and with civilian entities which may be involved with its contents […]. (Brasil. Ministério da Marinha, 1979a, p. XV, 1981a, p. XIV, 1983a, p. XIV)

Although serving as a basis for extra-navy relationships, it must be noted that they were not yet a declaratory document, since they were classified at the time.

One important linkage explained was the relation with the official mission of the Navy. The mission then explained not only the Navy's military assignments, but also its subsidiary ones, which the doctrine explicitly stated that were not pertinent to it, although aligned with the national objectives in higher-level documents (Brasil. Ministério da Marinha, 1979a, p. XV, 1981a, p. XIV, 1983a, p. XIV). In that sense, the mission was more flexible than the defined doctrines (1979a, p.XV, 1981a, p.XIV, 1983a, p.XIV).

As indicated before, the official missions of this period stated that the Navy 'should prepare and employ the Naval Power, in peace and wartime, to fulfil the [10] tasks […] listed in order to contribute to the achievement of the National Objectives' (Brasil. Ministério da Marinha, 1979a, p. XV, 1981a, p. XV, 1983a, p. XV). The tasks involved were 'sea control', 'sea denial', 'deterrence', 'force projection', and 'contribution to other services', as well as 'assurance for the use of the waterways in the Amazon and Paraguay River basins', 'contribution to the maintenance of law and order and institutions', 'provision for the safety of maritime, riverine and lake navigation', and 'collaboration with the social-economic and technical-scientific development of the country' (1979a, pp.XV–XVI, 1981a, p.XV, 1983a, p.XV). Here again is evidenced the explicit association of the Navy with the development of the country, which would be seen to a greater of lesser degree in every document at the defence level from the mid-1990s onwards, as seen in section 3.1.3.

Regarding the contents, as mentioned above, the chapters usually relate to traditional activities. Among the 'naval warfare operations' chapter (no. 4), a new topic appeared: 'Defence of exploration/exploitation of offshore oil platforms'. The inclusion of this aspect reflects the growth of offshore oil exploitation over the 1960s, 1970s and beyond in Brazil, which was seen as a target in cases of war and sabotage (Brasil. Ministério da Marinha, 1983a, pp. 4.24–4.25).

In the chapter titled 'The navy in non-maritime theatre' (no. 5), riverine operations, which related to one of the tasks of the mission, were defined as:

> [operations] involving ships and / or vessels, including civilians to be mobilized, ground forces / marines and aircraft, in a combination of efforts to achieve and / or maintain control of a riverine area or to deny its use by the enemy. (Brasil. Ministério da Marinha, 1979a, p. 5.4, 1981a, p. 5.3, 1983a, p. 5.2)

This equates to a riverine version of sea control and sea denial, where interoperability amongst the armed forces and, if necessary, the civilians is designed and expected.

Within the final chapter (no. 6), titled 'The Navy in peacetime', 'Coastal patrol' is mentioned. The peculiarity here is Brazil's position at the time regarding the extension of the

territorial sea when no global official consensus had been reached,[93] although UNCLOS III was coming to a close in 1982. Brazil, unilaterally on March 25, 1970, established its territorial sea to 200 nautical miles (NM) (Brasil. Presidência da República, 1970), as already adopted by the majority of Latin American states at that time (Silva, 2015, p. 279). Brazil changed this to 12 NM on January 4, 1993 (Brasil. Presidência da República, 1993b) as a result of the UNCLOS III coming into force in November 1994.[94]As a direct result of the 1970 position, the BN, still trying to increase its naval force, saw its responsibilities hugely increasing, in economic and security terms, arguably without the correspondent amount of means provided.

The shift in 1993, although altering the territorial sea from 200 NM back to 12 NM, and altering the security (sovereignty) aspect, has not deprived coastal states of economic benefits and responsibilities over the same area. This came with the exclusive economic zone concept in the new Law of the Sea, which gave sovereign rights to coastal states up to 200 NM over 'the natural resources, whether living or non-living, of the waters overlying the seabed and of the seabed and its subsoil' (United Nations, 1982, p. 43).

In being executed by naval means and by air, this activity of coastal patrol implied the following responsibilities defined in the first group of doctrines:

> – to carry out inspection aimed at safeguarding resources of the territorial sea and the continental shelf, in accordance with the pertinent Brazilian legislation;
> – to cooperate with the repression against smuggling and illicit trade;
> – to control maritime areas under Brazilian jurisdiction regarding the innocent passage of merchant ships and the transit of warships and the compliance with Brazilian legislation in general, including environmental protection; and
> – to collect and transmit meteorological and oceanographic information […]. (Brasil. Ministério da Marinha, 1979a, pp. 6.4-6.5, 1981a, pp. 6.3-6.4, 1983a, pp. 6.4-6.5)

As seen, they refer directly to the constabulary/policing aspect of Booth's and Grove's approaches.

As previously mentioned, this small group of basic doctrines did not present many distinctions amongst themselves. Notwithstanding, it is interesting that the 1983 version stayed in force until the 1997 edition, i.e., lasted around 8 years until the end of the Cold War, and around 6 years into the beginning of the new world order. Moreover, the 1983 doctrine lasted through the transition from the military to the civilian administrations in 1985, three civilian presidents and five Ministers of the Navy until the eve of the creation of the MoD in 1999. Apparently, no change in terms of security and defence at the national level or maritime and naval (policies and strategies) domains was relevant enough to provoke any alteration in this

[93] According to Silva (2015), 'both the First and Second Conferences on the Law of the Sea [– respectively, the 1958 and 1960 Geneva Conventions –] failed to overcome the main point of contention between the negotiating states regarding the breadth of the territorial sea. […][T]he scenario of territorial sea width at the time [– around 1970] can be outlined as follows: up to 3 nautical miles (NM) (30 countries); between 3–12 NM (49 countries) and over 12 miles (7 countries, 1 being African-Guinea, 130 miles; 6 Latin Americans, including Brazil in 1970, 200 NM of territorial sea). Several countries have not reported or made available such information' (2015, p.46).
[94] As noted in section 2.1, since its independence, Brazil has adopted six distinct breadths of territorial sea. The criterion of the gunfire reach was adopted until the beginning of the World War I, when it changed to 3 NM. Then, before the last two positions in 1970 and 1993 (200 NM and 12 NM, respectively), it changed to 6 NM on November 18, 1966 (Decree-law no. 44), and to 12 NM on April 25, 1969 (Silva, 2015, pp. 273–282).

manifestation of naval thinking until the mid-1990s, when, eventually, the PDN 1996 was introduced. Many explanations can account for this lack of change. Arguably, the inertia that resulted from objectives from the 1980s in a period when states were maybe confused and accommodating the new post-Cold War maritime scenario might be one of them.

1997, 2004, 2014, 2017

The second group of basic doctrines started when Admiral Mauro Cesar (1995–1998) approved the 1997 edition, just after the publication of the PDN 1996, which was, for the first time, an open related document at the higher defence level.

With considerable time spans after the 1997 doctrine, the rest of the doctrines presented considerable changes. At the same time, while the 1997 doctrine was published after a long period and just before the MoD's foundation, the 2004, 2014 and 2017 editions were supposedly affected by all changes that came with the MoD – namely PDN 2005, END 2008, and PND, END and LBDN (National Defence White Paper; *Livro Branco de Defesa Nacional*, in Portuguese) in 2012 and 2016.[95]

The 1997 and 2004 doctrines seemingly follow the same structure of the 1983 document, but there are subtle differences reflecting the past Cold War and the ensuing remainder of the century, as well as the beginning of the new one. In that sense, the 2014 and 2017 versions have taken into account the post-Cold War order, but arguably also show a deepening of the current century order, especially in Brazil's case, with the relevant landmark of the creation of the MoD.

Before looking at the differences between the 1997 and 2004 and the 2014 and 2017 versions, it is worth emphasising some changes between the 1997 and the 1983 doctrines, for the sake of identifying any tendencies. In the 1983 doctrine, chapters included 'Maritime power and naval power', 'The naval warfare', 'Operations of naval warfare', 'The Navy in non-maritime theatre', and 'The Navy in peacetime'. In the 1997 doctrine, there was no relevant difference, aside from some changes in the titles.[96] However, a first sign of major difference was the emphasis on a new chapter addressing 'Conflicts and employment of armed forces', which reveals the nuances of the peace-war spectrum in a more particular way with, for instance, a topic on 'Crisis' now being explicitly exposed (Brasil. Ministério da Marinha, 1997a, p. III).

Three other topics are worth considering in regard to Chapter 6, 'Operations in peacetime'. The first two are new in title and content and are already noted during our examination of the naval policies and strategy statements. They are 'The Naval power in peacetime' and 'The employment of Naval Power in peacekeeping operations' (Brasil. Ministério da Marinha, 1997a, p. IV). As opposed to the 1983 doctrine, in the 1997 edition, the many possibilities of naval force use were highlighted, including 'port visits', 'combined

[95] The PND, END and LBDN 2016 versions were approved by the Congress only on December 14, 2018 (Brasil. Senado Federal, 2018).

[96] In the 1997 doctrine, 'Conduct of the naval warfare' was used instead of 'Operations of naval warfare'; 'Operations in non-maritime theatre' instead of 'The Navy in non-maritime theatre'; and 'Operations in peacetime' instead of 'The Navy in peacetime' (Brasil. Ministério da Marinha, 1997a, pp. III–IV). The word 'Operations' replaced the term 'The Navy', along with a large amount of content, apparently suggesting the deepening and increasing complexity of the subjects demanding a greater systematisation in the form of 'Operations'.

exercises with friendly navies', 'operations under the aegis of international organisations', 'participation in the national system of civil defence' and 'social-civic assistance', usually in far-flung regions of the country (1997a, p.6.1). Under the specific topic of peacekeeping operations, this version addressed their distinct types, their diplomatic character, and how the naval force could be employed in this task (1997a, p.6.1-6.3).

The third topic regarded 'coastal and riverine patrol', dividing the 1983 'Coastal Patrol' section in two. In this previous edition, coastal patrol action referred to both maritime and riverine spaces (Brasil. Ministério da Marinha, 1983a, p. 6.4). In the 1997 edition, coastal patrol and riverine patrol were addressed separately, yet the duties of the Navy remained similar (Brasil. Ministério da Marinha, 1997a, p. 6.3). The remaining subsidiary responsibilities of the naval power were listed as 'safety of waterway navigation', 'preservation against water pollution […] in […] collaboration with the […] federal or state bodies concerned' and 'supervision of the waterway traffic, by means of Naval Police (Naval Inspection)' (1997a, p.6.4). Thus, while these earlier doctrines normally addressed the military side of Booth's and Grove's triangles almost uniquely, the doctrine of 1997, nearly in the middle of the timeframe, was more all-encompassing, also mentioning the diplomacy and constabulary sides of the triangle.

The 1997 and 2004 doctrines, in turn, as signalled before, do not greatly differ. In the introduction to the 1997 version, as in the earlier versions, similar purposes are stated, recalling that it is 'the main source of reference for the preparation and employment of Naval Power by all levels, in peacetime and in situations of conflict' (Brasil. Ministério da Marinha, 1997a, p. V). The main novelty of the 1997 doctrine compared to the previous ones, as mentioned, is that it considers as one of its sources not only 'high-level documents', 'national historical experience', 'technological evolution of naval forces and its application to recent conflicts', but also the experience from the 'employment of peace forces under the aegis of the United Nations' (1997a, p.V), recalling the participation of the Navy in the UNAVEM-III, in Angola, in the mid-1990s.[97] The linkage with the mission of the Navy presented no significant alteration, retaining the general tasks related to maritime power, the preparation and employment of the naval power, and their direct purpose of achieving the national objectives (1997a, p.VI). The difference was that the intermediate tasks were no longer listed, certainly due to the significant increase in the variety of tasks (1997a, p.VI).

As for the 2004 doctrine, it is worth noting that it mentions more explicitly the linkage between the doctrine and subsidiary activities ('other activities not related to the main activity'):

> The Basic Doctrine of the Navy […] establishes the concepts, principles and, broadly, the methods of employment in combat, or other activities not related to the main activity, with the purpose of guiding the planning, preparation and employment of the Brazilian Naval Power. (Brasil. Marinha do Brasil, 2004, p.V)

The 2004 document includes concepts of 'irregular warfare', 'information warfare', 'non-combatant evacuation operations', and 'enforcement of law and order operations' (Brasil. Marinha do Brasil, 2004, p.VI). There were also modifications of concepts like 'riverine

[97] For further details, see https://www.marinha.mil.br/comffe/node/10.

operations', 'employment of the naval power in peacekeeping operations', 'Coastal and Riverine Patrol' and 'Naval Patrol', and a further specification of 'subsidiary activities' (2004, p.VI). The main modifications, indicated mostly in the chapter 'Operations in peacetime', pertain to the increased detailing and complexity of the same activities already mentioned in the 1997 doctrine. It is important to recall the effect of the growing consolidation of the MoD and subsequent CL no. 97/1999. This law, for instance, contributes to further, in the legal sphere, the number of tasks and activities associated with 'Naval Patrol' and 'Subsidiary Activities' (2004, p.6.5-6.7). As for the mission statement, the 2004 doctrine implemented slight changes, as noted in the 2003 naval policy (called DirBaM, as seen), showing the preference for a simpler description, despite the growing number of activities, already sensed at this moment of the timeframe.

The last pair of doctrines – 2014 and 2017 – show a significant change in the contents compared to the previous editions. While the 1997 and 2004 editions presented a relatively modest chapter (no. 6) regarding 'Operations in peacetime', with only five topics (Brasil. Ministério da Marinha, 1997a, p.IV; Brasil. Marinha do Brasil, 2004, p.IV), the 2014 and 2017 versions, in a way, divide this chapter in two: 'The Naval Power in activities of limited force employment', linked to security, and based on constitutional or legal imposition, and 'The Naval Power in benign activities', linked to safety. Together, these two parts include nearly 30 topics (Brasil. Marinha do Brasil, 2014, p.IV, 2017, pp.IV–V), such as:

– 'Naval Patrol' and 'Naval Inspection' (an enlargement of the previous 'Naval Patrol');
– 'Guarantee of law and order operations';
– 'Actions against cross-border and environmental crimes';
– 'Peacekeeping operations';
– 'Support to the Foreign Policy';
– 'Civic-social actions';
– 'Cooperation with National Development';
– 'Cooperation with the formulation and conduction of national policies linked to the sea'; and
– 'Support to the Brazilian Nuclear Programme Protection System'.

Additionally, two slightly distinct versions of the Navy's mission underpinned each doctrine. The 2014 doctrine remembered that the mission was enunciated in the PEM (Navy Strategic Planning), and the 2017 doctrine in turn highlighted that it was underlined by the 2012 END (since the 2016 one was finished but then not approved yet) and the PEM (Brasil. Marinha do Brasil, 2014, p.VII, 2017, p.VIII).[98] As the Navy's various missions will be more

[98] The mission put forward in the 2014 version was to: Prepare and employ the Naval Power in order to contribute to the defence of the Homeland. Be ready to act in the guarantee of constitutional powers and, on the initiative of any of them, of law and order; to act in actions under the aegis of international organisations and in support of the country's foreign policy; and comply with the subsidiary duties provided for in the Law, with emphasis on those related to the Maritime Authority, in order to contribute to the safeguarding of national interests (Brasil. Marinha do Brasil, 2014, p.VII). The mission put forward in the 2017 version was to: Prepare and employ the Naval Power in order to contribute to the defence of the Homeland; for the guarantee of constitutional powers and, on the initiative of any of them, of law and order; for the fulfilment of the subsidiary duties provided for in Law; and support for foreign policy (Brasil. Marinha do Brasil, 2017, p.VIII).

thoroughly examined in the ‘Naval Force’ section, it suffices to say here that both versions go beyond defence, addressing also important segments of the Navy’s activities such as diplomacy and constabulary duties, incorporating also constitutional assignments, specifically the ‘assurance of constitutional powers and, on the initiative of any of them, of law and order’ (2014, p.VII, 2017, p.VII).

This sequence of doctrines shows that, over the timeframe, activities not directly related to warfighting had been increasingly included in the navy’s doctrinal portfolio. This move reflects not only the Navy’s domestic and legal responsibilities, but also the transformative and more diffuse character of the peace-war spectrum in the post-Cold War era, with navies tackling distinct types of threats and risks, especially those navies that did not share a large group of activities with a constabulary force, like a coast guard. Admiral Moura Neto is quite emphatic when he states that the BN over time increasingly acknowledged the importance of taking care of brown waters along with its traditional concern about blue waters (personal communication, March 27, 2019). With this gradual change, he continues, the BN increased the weight of patrol ships – based in the Naval Districts – as a component of the force structure, as the figure in the next section will show (personal communication, March 27, 2019). Admirals Mauro Cesar and Leal Ferreira reinforce this idea that there is no other institution in Brazil with any maritime expertise able to become a coast guard, whose responsibilities have been fulfilled by the navy since its first moments (M. Pereira, personal communication, March 26, 2019; E. Ferreira, personal communication, March 21, 2019).

Admiral Ilques, in turn, indicates that Brazil, as a continental country, does not need to, like in the past, ‘import’ threats, under the influence of maritime powers, like the United States (personal communication, April 1, 2019). Nowadays, especially after the end of the Cold War, Brazil has plenty of threats and risks on its own, as the cited enlargement of the doctrinal portfolio has shown, especially in the maritime security realm (personal communication, April 1, 2019).

Besides, there are also other contingencies related to ‘national development’, linked, for instance, to survey and scientific research, something always present, and also opportunities – e.g. cooperative diplomacy on behalf of the State, beyond, but not excluding, the traditional competitive aspect.

As a conclusion for this section, the trends in the naval doctrines – expressing more the practice level of the first maritime strategy perspective – reflect not only the changes already identified in the policies and strategy statements, but also are increasingly aligned with the gradual changes seen in the national-level documents. This was confirmed especially after the turn of the century, with the advent of the defence documents.

Under the framework of risks-opportunities-ends-ways-means, we can see the broadening of 'ends' in the larger spectrum of conflict, with the increase of peacetime activities, on an international and domestic level, being accompanied by their own 'risks' and 'opportunities', and affecting the 'ways' and, to some degree, as will be seen in the next section, the configuration of 'means' as well. Still, in terms of maritime strategy perspectives, the composition of doctrines expresses, besides the concerns over the more purely military

approach, the growing approach of maritime security and, thus, of broader maritime strategy, explicit in the third and fifth perspectives.

Finally, this set of naval documents, comprising policies, strategy statements and doctrines, having presented the many elements shown above, will, along with the next two sections – naval forces and naval publications – form a bridge with what came previously (sections 3.1 and 3.2 together), in terms of strategy and naval policy, as claimed at the beginning of this section 3.2. Hopefully, the next section will complement that alignment, by providing, with the force structure, the concrete elements of the Brazilian maritime strategy, characterising its naval strategic thinking.

3.2.2 Naval Force – or Practice level

Force Structure

In the Introduction, the importance of starting from the basics of the functions of navies was addressed, because this approach permits us to construct an idea of how specific navies develop specific maritime strategies, in either a more traditional or a broader sense. In sum, this allows us to examine how and why ships are used, and how the structure of that specific navy behaves in symbiosis with its own state and society. However encompassing might be the strategic triangle metaphor offered by Booth in 1977 and Grove in 1990, the wide range of scope and depth presented by many navies around the world might add new perspectives, as well as reinforcing those already presented.

As seen in Brazil's case so far, on the one hand, despite limitations – usually financial and technological – there has been a constant concern, throughout its naval history, for having a well-configured and prepared fleet to act as effectively as possible against military risks and threats. On the other hand, there has also been a permanent involvement with subject matters of the country that, while usually linked to maritime and riverine spaces, also extrapolate them.

Other important points to be considered include geography, functionality and force structure. The first point relates to Brazil being a country of continental numbers, as seen before, with tens of thousands of riverine navigable waters; a coastline of approximately 7,400 kilometres; an area of jurisdictional waters around 5.7 million square kilometres – called the Blue Amazon, since 2004 (section 2.2), equivalent to two thirds of the country's land territory – and a search and rescue area that extends around 15 million square kilometres into the South Atlantic. The second refers to responsibilities expressed in the dual function of the navy leadership: Minister or Commander of the Navy – before and after June 1999, respectively – and Maritime Authority, in charge of the matters related to maritime power. The third point is the force structure itself, which, taking into account the two previous points, can arguably be judged to be of relatively small size for a navy. Moreover, it is fair to say that many times the issue is not only the limited size of the force structure, because, in other words, ships cannot do everything. Therefore, Navy land organisations sometimes might arguably achieve similar strategic effects through the same triple functional approach. Strategic effects should not necessarily be viewed only in a military sense but also through a broader lens, likely encompassing defence effects.

Thus, in this thesis, although ships are central to the force structure, we will also evaluate, through the basic lenses provided by Booth and Grove, how other organisations inside or related to the navy might achieve – jointly or alone – the goals related to each side of the triangle. In keeping this relationship, we expect to stay as close as possible to the use of the sea (and rivers as well) as the 'vital factor', as described by Grove when referring to Booth's 'perceptive triangle or "trinity" model' (Grove, 1990, p. 232).

In examining the force structure during the timeframe, the approach in the first and second periods, using the creation of the MoD as a dividing moment, will be considered, as it might be suitable for analytical purposes. As ships usually have a long-life period, sometimes around 30 years or more, that time division might make little sense. However, in terms of navies, ships have to be as flexible as possible over their lifetime when it comes to missions and resulting activities. This is especially the case with the uncertainties that followed the end of the Cold War and the beginning of the current century, with troubling events arising like terrorism attacks affecting the maritime domain.

Operational Structure - ComOpNav and DGN

Based on the above points, it is relevant to address the types of activities in the Brazilian Navy, starting with its operational structure, simplified in the Figure 3.4 below. Its top-down division – just below the Ministry/Commander level – towards maritime and riverine means has two branches, both headed by a four-star Admiral. One branch is the so-called 'Operative Sector',[99] the Naval Operations Command (*Comando de Operações Navais*, ComOpNav), through which it goes either to the Fleet Command-in-Chief[100] (*Comando-em-Chefe da Esquadra*, ComemCh) or to the Naval Districts (*Distritos Navais*).[101] The ComemCh usually provides the fleet combatants, and the latter normally the patrol, constabulary forces and survey forces (hydro-oceanographic ships and buoy tenders), spread throughout the country. There are also two navy organisations directly subordinated to ComOpNav that need to be addressed in due time, given their contributions either to classic elements of maritime strategy or to the varied elements of maritime security: the Fleet Marines Force (*Força de Fuzileiros da Esquadra* – FFE) and the Maritime Traffic Naval Control Command (*Comando do Controle Naval do Tráfego Marítimo*, COMCONTRAM). The latter was re-named in 2018 as the Maritime Security Integrated Centre (*Centro Integrado de Segurança Marítima*, CISMAR) (Marinha do Brasil, 2018c)[102].

[99] 'Operative Sector' (*Setor Operativo*) and 'Support Sector' (*Setor de Apoio*) were the two types of sectors under the designation 'Sectorial Direction Organisations' (*Órgãos de Direção Setorial*, ODS) as opposed to 'General Direction Organisation' (*Órgão de Direção Geral*, ODG), which is the organisation called 'Navy Staff' (*Estado-Maior da Armada*, EMA). Both sectors were so-called from 1968 to 2005; as of 2005 these official classifications were abolished and all operative and support sectors headed by a four-star admiral continued only under the designation of 'Sectorial Direction Organisations' (*Órgão de Direção Setorial*, ODS) (Brasil. Presidência da República, 1968, 2005b).

[100] The Fleet Command-in-Chief is a three-star admiral.

[101] The Naval Districts usually have three-star admirals, totalling six districts in 1985.

[102] This change happened during Admiral Leal Ferreira's mandate, converging to his assessment about the increasing importance of subsidiary assignments in the mission of the Navy, already commented. At the same time, he acknowledges that there was no direct reference to the PMN, considerably outdated at that moment (personal communication, March 21, 2019).

The second branch is similar to one of the so-called 'Support Sectors': the organisation called Directorate-General for Navigation (*Diretoria-Geral de Navegação*, DGN). All ships in Rio de Janeiro that are not based in Fleet or the First Naval District – headquartered in Rio de Janeiro city – and that conduct research and survey, hydrography, oceanography, meteorology and the like, are ultimately subordinate to DGN.[103] These ships are normally assigned to activities such as surveys to support naval operations, safety of navigation in the maritime areas of interest to Brazil, and scientific programmes, usually jointly with the Brazilian scientific community (Diretoria do Patrimônio Histórico e Documentação da Marinha - DPHDM, 2018) – in sum, maritime affairs without any use of force. Outside Rio de Janeiro, these ships are subordinate to each Naval District and are designed to conduct hydrographic and navigation system maintenance services in their respective areas.[104]

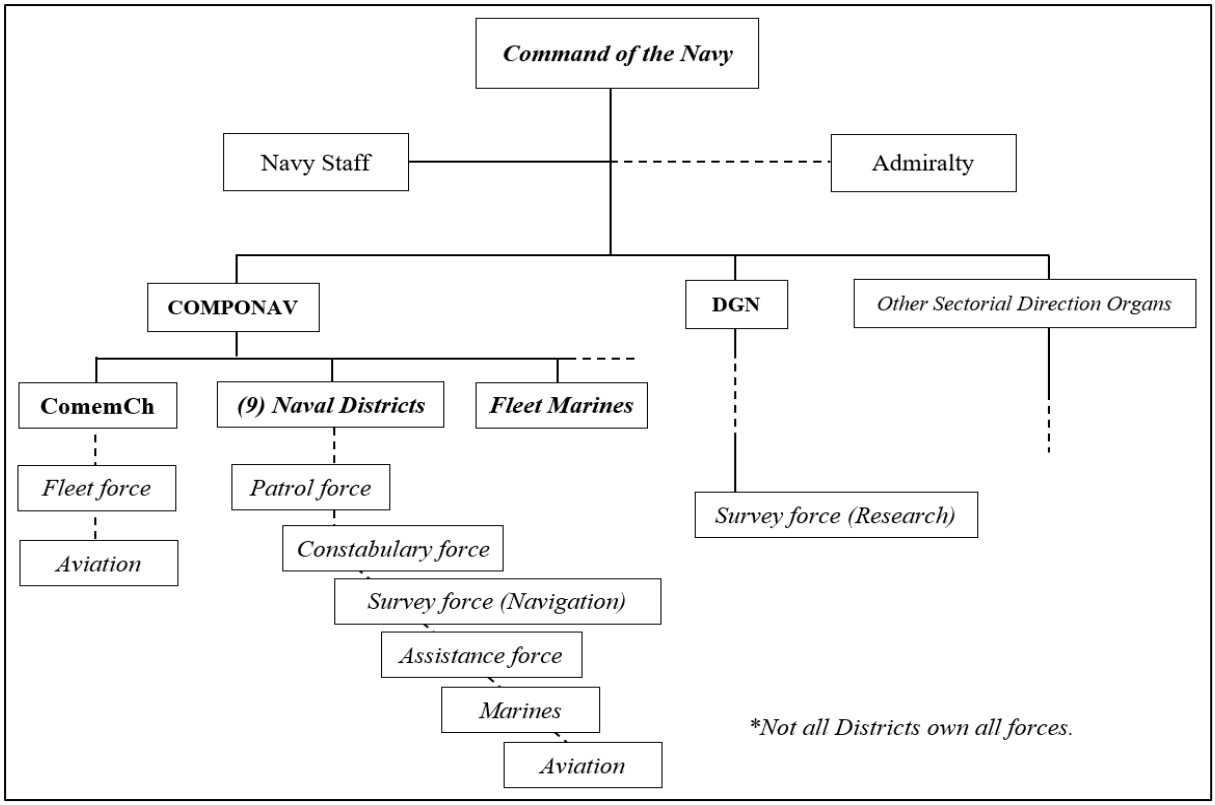


Figure 3.4 – Adapted from the Brazilian Navy organogram, containing the two branches with ships: ComOpNav and DGN (Estado-Maior da Armada, 2018)

Under the ComOpNav, the ComemCh branch, housing the main combatants, fulfils the military and diplomatic roles in a more traditional way. The Naval Districts branch offers another range of activities, due to their responsibilities on their own inland-water areas and/or

[103] In fact, there are two organisations subordinate to DGN: the Directorate for Hydrography and Navigation (*Diretoria de Hidrografia e Navegação*, DHN) and the Group of Hydro-oceanographic Ships (*Grupamento de Navios Hidroceanográficos*, GNHo), to which the ships are directly subordinate (Estado-Maior da Armada, 2018).
[104] Admiral Guimarães Carvalho summarises this structure in the BN indicating that while ComOpNav addresses mostly the naval power, DGN addresses maritime power, with the Commander of the Navy being the Maritime Authority and therefore having the last word regarding the two branches (personal communication, March 29, 2019).

respective maritime zones. In 1997, 12 years into this study's timeframe, and 6 years after the end of the Cold War, two Naval Districts were created to complement the initial six. The Seventh is in the Central-West region of the country, with only inland-water areas – headquartered in the country's capital, Brasília – and the Eighth is in the Southeast region of the country, with maritime and inland-water areas – headquartered in the city of São Paulo. Eight years on, in 2005, the Ninth Naval District was created in the north of the country, with only inland-water areas – headquartered in the city of Manaus. In fact, it splits the original Fourth Naval District – headquartered in Belém – in two, due to its immense area. This area originally starts from the littoral – in the country's Northern maritime zone encompassing the Amazon River estuary – and goes west upstream all along the Amazon River, including its tributaries. The Ninth Naval District kept the most Western part of the original Fourth Naval District. The increased number of Naval Districts over the timeframe in itself is quite meaningful. It reflects, to a certain extent, the increasing demands and needs from many levels of society, encompassing a wider range of expected roles and means to fulfil them.

Fleet Force

With the above organisational structure in mind, the aim now is to address how those means appeared or changed over the timeframe, so that, in verifying how activities were undertaken and their alignment with missions and other important documents, we can delineate Brazil's maritime strategy or its naval strategic thinking. Thus, following the Fleet, Districts, and DGN will leads us to these means.

Regarding the Brazilian fleet ships after the mid-1980s, the following categories are worth defining: aircraft or helicopter carriers; destroyers, frigates, and corvettes, as escort ships; submarines; amphibious ships; and auxiliaries. Brazil, as mentioned, had its first aircraft carrier '*Minas Gerais*' (A11) – former British HMS Vengeance, Colossus class, around 19,000 tons – from 1960 to 2001 (FGV Projetos, 2016, p. 140; Moore, 1984, p. 50); the aircraft carrier 'São Paulo' (A12) – former French Foch, Clemenceau class, around 33,000 tons – from 2001 to 2018 (Saunders, 2003, p. 61; Wiltgen, 2018); and the helicopter carrier *Atlântico* (A140) – former British HMS Ocean, around 21,500 tons – from 2018 onwards (Comando da Força de Superfície, 2018; Saunders, 2016).[105]

As for escort ships, the three types cited above under Brazilian classification differ in their forms and origins of procurement. Ten destroyers – the bulk of Fleet's escorts in 1985 – were of U.S. origin, commissioned at the end of the Second World War and transferred to Brazil in the early 1970s,[106] under the existent military agreement (Moore, 1985, pp. 52–53).[107]

[105] Admiral Mauro Cesar argued that Minas Gerais could have been used longer, provided that it was modernised in the 1990s (personal communication, March 26, 2019).

[106] Out of the 10 units in 1985, two were of former Gearing class (*Contratorpedeiros* 'Marcílio Dias' – D25 – and 'Mariz e Barros' – D26), three former Fletcher class (*Contratorpedeiros* 'Piaui' – D31, 'Santa Catarina' – D32, and 'Maranhão' – D33), and five former Allen Sumner class (*Contratorpedeiros* 'Mato Grosso' – D34, 'Sergipe' – D35, 'Alagoas' – D36, 'Rio Grande do Norte' – D37, and 'Espírito Santo' – D38) (Moore, 1985, pp. 52–53). Another four units of the former Garcia class, commissioned in the United States in the mid-1960s, were leased to Brazil and commissioned there in 1989 (*Contratorpedeiros* 'Pará' – D27, 'Paraíba' – D28, 'Paraná' – D29, and 'Pernambuco' – D30) (Sharpe, 1989, p. 55).

[107] The existing military agreement was cancelled in 1977. In Admiral Ilques' view, this event sparked a process of maturity in Brazil, with the nation and its navy, despite the remaining links to the Western world, being more able to identify its own objectives and threats (personal communication, April 1, 2019).

Six frigates purchased from a British shipbuilding company at the beginning of the 1970s, with four being built in the United Kingdom and two in Brazil, were commissioned by the Brazilian Navy between 1976 and 1980 (Moore, 1983, p. 51).[108] Another round of frigates – four former HMS Broadsword class commissioned by the Royal Navy between 1979 and 1980 – was transferred to and commissioned by the BN between 1995 and 1997 (Sharpe, 1996, p. 57).[109] Four corvettes were designed and built in Brazil with advice from a German company, commissioned between 1989 and 1994 (Sharpe, 1996, p. 59)[110].

In terms of submarines, in 1985 the older units were two former Guppy II types and two former Guppy III types, built in the United States at the end of the Second World War and sold to Brazil in 1972/73 (Moore, 1984, p. 50).[111] Completing the submarine force in 1985, there were three units of the British Oberon class, ordered between 1969 and 1972 and commissioned between 1973 and 1977 (Moore, 1984, p. 50).[112] Four *Tupi* class submarines (German project) were incorporated between 1989 and 1999, with a new modified unit in 2005 (Saunders, 2012, p.69).[113]

With regard to amphibious ships, only larger ships were considered, not including the varied types of landing crafts. At the beginning of the timeframe, there were two landing ship tanks (LST) from the U.S. Navy, transferred to Brazil in the early 1970s (Moore, 1983, p. 52).[114] The tendency to purchase American ships continued from the late 1980s to mid-1990s, with two landing ships, dock, helicopters (LSDH) leased to Brazil and commissioned in 1989 and 1990, and one landing ship, tank, helicopter (LSTH) leased to Brazil and commissioned in 1994 (Saunders, 2003, p. 69).[115] In the current century, business shifted more to Europe, firstly with the acquisition of two landing ships, logistics, helicopters (LSLH) from the Royal Navy,

[108] *Fragatas* 'Niterói' (F40), 'Defensora' (F41), 'Constituição' (F42), 'Liberal' (F43), 'Independência' (F44), and 'União' (F45) (Moore, 1983, p.51).

[109] In Brazil they were commissioned as: *Fragatas* 'Greenhalgh' (F46), former HMS Broadsword; 'Dodsworth' (F47), former HMS Brilliant; 'Bosisio' (F48), former HMS Brazen; and 'Rademaker' (F49), former HMS Battleaxe (Sharpe, 1999, p. 58).

[110] *Corvetas* 'Inhaúma' (V30), 'Jaceguai' (V31), 'Júlio de Noronha' (V32), and 'Frontin' (V33) (Sharpe, 1996, p.59).

[111] Former Guppy II types: *Bahia* (S12) and *Ceará* (S14). Former Guppy III types: *Goiás* (S15) and *Amazonas* (S16) (Moore, 1984, p.50).

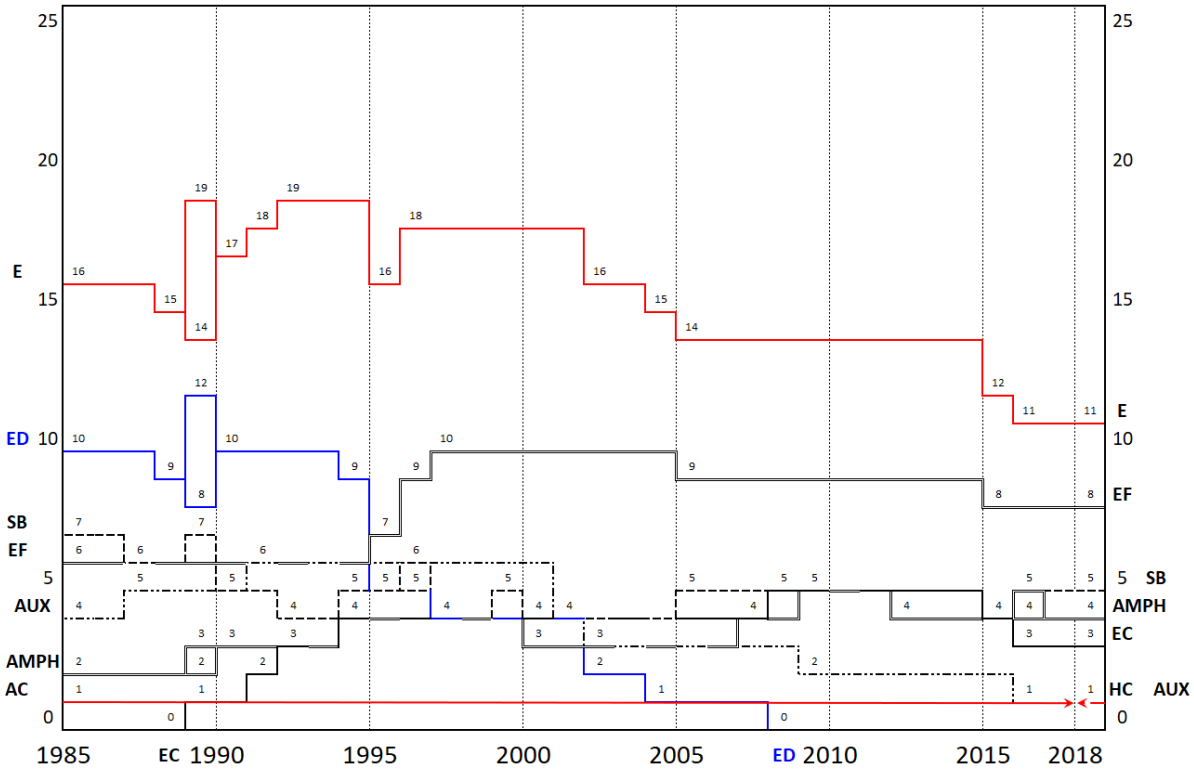
[112] Former British Oberon class: *Humaitá* (S20), *Tonelero* (S21) and *Riachuelo* (S22). In terms of technological, and consequently, doctrinal advance, Admiral Guimarães Carvalho argues that the procurement of the Oberon class submarines, and the Niteroi class frigates represented the two major inflection points in the BN's fleet he testified in his whole career (personal communication, March 29, 2019).

[113] *Tupi* (S30), *Tamoio* (S31), *Timbira* (S32) and *Tapajó* (S33). The new unit: *Tikuna* (S34) (Saunders, 2012, p. 69).

[114] Former USS Grant County became Brazilian *Navio de Desembarque de Carros de Combate* (NDCC) 'Duque de Caxias' (G26), 7,000 tons; and former USS Outagamie County became Brazilian NDCC 'Garcia D'Ávila' (G28), 4,000 tons (Moore, 1983, p. 52).

[115] The first two were former USS Hermitage and Alamo, renamed as *Navio de Desembarque Doca* (NDD) 'Ceará' (G30), and 'Rio de Janeiro' (G31), respectively; and the latter, former USS Cayuga, was renamed as Brazilian NDCC 'Mattoso Maia' (Saunders, 2003, p. 69).

which were commissioned in Brazil in 2007 and 2009 (Saunders, 2012, pp.79–80).[116] A further LSDH was then acquired from France, commissioned in 2016 (Saunders, 2016).[117]



AC – Aircraft Carrier; HC – Helicopter Carrier; AMPH – Amphibious Ships
AUX – Auxiliary Ships; ED – Escort Destroyers; EC – Escort Corvettes; EF – Escort Frigates
E – Total Escorts; SB - Submarines

Figure 3.5 – Naval/Maritime Forces 1. Created by the author

There are a variety of auxiliary vessels, like tenders, submarine rescue ships and others, but the ones considered here are the larger and more directly related to either miscellaneous or replenishment tasks. From the four available in 1985, three were transport ships – for troops or cargo – ordered by Brazil from Japan in the mid-1950s (Sharpe, 1991, p.66),[118] and one a tank ship, built and commissioned in Brazil in the late 1960s (Saunders, 2016).[119] Another tank, also built in Brazil, was commissioned in 1991 (Saunders, 2016).[120]

[116] Respectively, these were former HMS Sir Galahad (new NDCC 'Garcia D'Ávila' – G29) and former HMS Sir Bedivere (new NDCC 'Almirante Saboia' – G25) (Saunders, 2012, pp.79–80).
[117] Former French Siroco (Foudre class), firstly commissioned in 1998 by the French Navy, became the Brazilian *Navio-Doca Multipropósito* (NDM) 'Bahia' (G40), NDM, meaning 'landing ship, dock, multipurpose' (Saunders, 2016).
[118] Three transport ships: *Navios Transporte de Tropa* (NTrT) 'Barroso Pereira' (G16), 'Ary Parreiras' (G21), and 'Soares Dutra' (G22). A fourth one, also from Japan – *Navio Transporte de Tropa* (NTrT) 'Custódio de Mello' – Ntr. 1/ G15, around 7,300 tons – was classified as a training ship in 1961 (U26) and was used as such until 1986 (then converted to G20) (Sharpe, 1991, p.66).
[119] Tanker: *Navio-Tanque* 'Marajó' (G27), commissioned in 1968, decommissioned in 2016.
[120] Tanker: *Navio-Tanque* 'Almirante Gastão Motta' (G23).

The Figure 3.5 expresses the numbers of these ships over the timeframe. As it illustrates, while Brazil has maintained an aircraft carrier in its portfolio as its flagship for more than 50 years, the amphibious and auxiliary ships together – since both types are used for transport function – first numbered six and then reduced to five. Therefore, there was not a great overall difference.

In terms of escort ships, however, the overall trend of decrease has been more significant, starting with 16, peaking at 19 before 1990, but ending up with 11 units at the end of the timeframe. The destroyers were of a relatively great number at the beginning, but were already remarkably old. Despite the addition of four CT Pará class (ex-Garcia)[121] in 1989, all three CT P (or old Pará) class (ex-Fletcher)[122] were decommissioned by 1990. Additionally, all CT Mato Grosso class (ex-Allen Sumner)[123] and all CT Marcílio Dias class (ex-Gearing)[124] ships were decommissioned as well between 1994 and 1997. The last destroyer, a Pará class (ex-Garcia), was kept until 2008.

Being the Niterói class frigates already existent in 1985, the added number of the Greenhalgh class frigates between 1995 and 1997 and of Inhaúma class corvettes between 1989 and 1994 were not enough to compensate for the decrease noted above, which ultimately resulted in the decommissioning of all destroyers. The only acquisition of an escort ship in the second part of the timeframe was a Barroso class corvette (V34) in 2008, an improvement from the previous Brazilian corvette project. As recollected by Admiral Guimarães Carvalho, former Commander of the Navy (2003–2007), poor economic conditions in the 1990s meant that this corvette underwent a 14-year period of construction, and was finally finished after a sudden economic upswing in the mid-2000s (personal communication, March 29, 2019). Currently (2019), there is an expectation of some recovery over the next decade with the ongoing programme – involving foreign and Brazilian companies – with four *Tamandaré* class frigates, indicating a continued effort on the part of the Brazilian industry to achieve higher technological levels in shipbuilding (Marinha do Brasil, 2019h).

Regarding submarines, while there has been a decrease over time, this has been less extreme. The reason for this is the gradual replacement that followed. The older American ex-Guppy II and ex-Guppy III types – Guanabara and Goiás classes, with retirement of the units between 1983 and 1993[125] – and the British Oberon class – Humaitá class, with retirement of the units between 1996 and 2000[126] – were gradually replaced with the new Tupi class (Type 209/1400) (Saunders, 2012, p. 69). One was built in Germany in 1989 and the last three in Brazil between 1995 and 1999.[127] Only one submarine was added in the second part of the timeframe, which was the Tikuna (S34) in 2005 (Type 209/1450), a modified version of the

[121] CT stands for *contratorpedeiro*, or destroyer. All units, as already mentioned, were as follows: *Pará* (D27), *Paraíba* (D28), *Paraná* (D29), and *Pernambuco* (D30).
[122] All existing units in 1985, as mentioned, were as follows: *Piauí* (D31), *Santa Catarina* (D32), and *Maranhão* (D33).
[123] All units, as mentioned, were as follows: *Mato Grosso* (D34) decommissioned in 1990; *Sergipe* (D35), *Alagoas* (D36), *Rio Grande do Norte* (D37), and *Espírito Santo* (D38), all decommissioned in 1995.
[124] As mentioned: *Contratorpedeiros* 'Marcílio Dias' (D25), and 'Mariz e Barros' (D26).
[125] All units these encompassed were: *Guanabara* (S10) (retired in 1983), *Bahia* (S12) and *Ceará* (S14); *Goiás* (S15) and *Amazonas* (S16) (Moore, 1983).
[126] As mentioned, all units these encompassed were: *Humaitá* (S20), *Tonelero* (S21) and *Riachuelo* (S22).
[127] As mentioned, all units these encompassed were: *Tupi* (S30), *Tamoio* (S31), *Timbira* (S32) and *Tapajó* (S33) (Saunders, 2012, p. 69).

Tupi class, whose completion was allowed by the cited economic upswing as well (Carvalho, 2019). Currently, the ongoing Submarine Development Programme (PROSUB – *Programa de Desenvolvimento de Submarinos*), in partnership with France, is expected to build four modified conventional-powered Scorpène class ships. The first one, Riachuelo, was already launched in December 2018. After completing the last three, it is programmed the completion of the only nuclear-powered submarine, with a fully Brazilian-built nuclear reactor (Marinha do Brasil, 2018e).

Admiral Mauro Cesar expressed his opinion that in the actual stage this project has to be continued, despite the obstacles (personal communication, March 26, 2019).[128] In this regard, Admiral Leal Ferreira recalled in his interview the considerable challenge this endeavour represented to the BN, to such a degree that it was necessary to reorganise the BN structure with the creation in 2018 of a new Directorate in charge of the PROSUB and PNM: Directorate-General of Nuclear and Technological Development of the Navy (DGDNTM in Portuguese) (personal communication, March 21, 2019).[129] Admiral Guimarães Carvalho, while concerned about the need of sustained budget for these projects, acknowledges that this change from the German to the French project was the only way to achieve the nuclear propulsion capability for the submarine (personal communication, March 29, 2019).

It is also worth considering the words of Admiral Ilques, Commander of the Navy since January 2019 (personal communication, April 1, 2019), who highlighted in the interview with the author that this partnership has been having a huge impact in terms of the development of the BN, and that, with the experience Brazil has aggregated so far, it will never have to buy a foreign submarine again.[130] As a game changer for the BN, it could be compared, up to a point, to the advent of the Niterói class frigates from the early 1970s onwards. This is especially the case because, before the latter two frigates, the last combatant ships of significant size to be built by the Navy Shipbuilder in Brazil were in the 1940s (Freitas, 2006, pp. 72–75). Moreover, the expertise gathered by naval engineers and technical teams helped to incentivise the following corvette project and construction, and the ensuing submarine construction (Freitas, 2006, pp. 72–75). he frigates also represented other novelties to the Navy like computerised tactical control and gas turbine propulsion, besides consolidating the Navy in the missile era (Flores, 1985a, p. 453). In general, despite the ebb and flow of numbers, what is evident in this period is a Navy trying to maintain a carrier-centred force, but, at the same time, broadening the Cold War focus away from only anti-submarine warfare, as revealed by the change in naval aviation configuration in the late 1990s. Furthermore, strong efforts were made to maintain

[128] Admiral Mauro Cesar in his interview showed to be a big supporter of BN developing and maintaining the capacity of designing projects at all costs, despite all the difficulties in developing them (personal communication, March 26, 2019).

[129] It is relevant to highlight that Admiral Leal Ferreira considered the restructuring of the BN for the PROSUB and the financial engineer for the *Tamandaré* class frigate programme the two most challenging and important decisions in the Admiralty during his tenure (personal communication, March 21, 2019). In the personnel area, he stressed his concern in keeping the personnel morale high during times of challenging budgets (personal communication, March 21, 2019). Admiral Moura Neto, in turn, converges to Admiral Leal Ferreira regarding the PROSUB, while adding the importance of PROANTAR and the related Brazilian and BN resilience in rebuilding its Antarctic Base (*Estação Antártica Comandante Ferraz*) after the fire that destroyed it in 2012 (personal communication, March 27, 2019).

[130] In his interview with the author, Admiral Ilques made a point of externalising the BN's gratitude to the French Navy for the cooperative relationship regarding the cited partnership (personal communication, April 1, 2019).

some amphibious and sea denial capabilities. Additionally, naval aviation and marine units, as a complement to surface platforms, play an obvious role in the force configuration, but instead of being addressed above, in the Fleet's segment, they will be addressed just after the Naval Districts, which follow next, as they serve both segments (Fleet and Naval Districts).

Naval Districts Forces and DGN Forces

In terms of Naval Districts, four main groups of force are worth discussing. The first is the patrol force (except in the Seventh Naval District). It acts mainly as a means of conducting military tasks – although in a limited scale due to its limited firepower – related to the country's sovereignty, and also helps to address constabulary tasks, including the defence of sovereign rights.

The second is the constabulary force. It is composed of the Navy organisations that fulfil port authority roles. In Brazil, these are structured at three levels, starting with the highest ranked: *Capitanias, Delegacias, Agências* (normally called CDA),[131] with their crafts and boats. Literally, every part of the country is under the jurisdiction of a unit from these types of organisations. The most encompassing are the *Capitanias*. The existent *Delegacias* and *Agências* are always subordinate to some *Capitania* (Estado-Maior da Armada, 2018). They are responsible for all activities connected to maritime power affairs, mainly enforcing national or international law in the Brazilian jurisdictional waters – maritime or inland waters – with purposes linked to subjects such as safety of navigation, safeguarding of human life, prevention of water pollution, and so forth (Diretoria do Patrimônio Histórico e Documentação da Marinha, DPHDM, 2019b).[132]

[131] The *Capitania* (plural: *Capitanias*) is the oldest type of these organisations, which emerged when the Emperor, via Decree no. 358, of August 14, 1845 authorised the government to establish a port authority called *capitania dos portos* in each maritime province ('provinces' became 'states' in the Republican period) of the Empire (Diretoria do Patrimônio Histórico e Documentação da Marinha, DPHDM, 2019b).

[132] The official purpose of *Capitanias dos Portos*, *Delegacias* and *Agências* is as follows: 'to contribute to the orientation, coordination and control of the activities related to the merchant navy and related organisations, regarding the safety of navigation, national defence, safeguarding of human life and prevention of water pollution' (Diretoria do Patrimônio Histórico e Documentação da Marinha, DPHDM, 2019a). As an example, the range of tasks of the *Capitania* in the Rio de Janeiro state (*Capitania dos Portos do Rio de Janeiro*) and its subordinate *Delegacias* and *Agências* encompasses the following: I. comply with and enforce national and international laws, acts and standards governing maritime, river and lake traffic relating to the safeguarding of human life and the safety of navigation in the open sea and inland waterways, and the prevention of water pollution from vessels, platforms or their support facilities; II. execute the inspection of the pilotage service; III. conduct naval inspections and audits; IV. initiate and/or conduct administrative inquiries regarding the 'facts and accidents of Navigation' and 'safety investigations of accidents and maritime incidents', in accordance with the specific legislation in force; V. assist the maritime search and rescue service, as determined by the First Naval District Command; VI. compete for the supervision and maintenance of marine navigation marks and signs; VII. carry out the activities related to 'maritime professional education', as it may be responsible; VIII. perform, when determined, activities related to military service; IX. support the military personnel of the navy and their dependents regarding payment, health and social assistance and, where appropriate, the civilian personnel and their dependents, when not competing with another navy military organisation; X. comply with and enforce the determinations issued by the representatives of the Brazilian Maritime Authority, in accordance with the powers delegated to them; XI. perform the inspection tasks necessary to maintain the good order of water traffic; XII. follow the technical guidelines issued by the Directorate of Ports and Coasts, with regard to 'water traffic safety', 'maritime vocational education' and the 'prevention of water pollution'; XIII. elaborate, keep updated and disclose the 'rules and procedures of the port authority'; and XIV. maintain updated records of information and characteristics related to ports, terminals and port facilities (Capitania dos Portos do Rio de Janeiro - CPRJ, 2019, sec.Missão).

The third group assembles survey ships in general, which I will refer to as 'survey force' hereafter. This includes all ships both subordinate to Naval Districts and to the DGN, headquartered in Rio de Janeiro. Usually, the ships allocated throughout the District areas are concerned with the more common but essential tasks of buoyage maintenance and hydrographic surveys,[133] all in support of the navigation aids service (for instance, making and updating nautical charts and alike) (Estado-Maior da Armada, 2018). The ships subordinate to the DGN are usually more complex, hence conducting more sophisticated activities such as surveys and research either in the hydro-oceanographic or polar domains.[134] Their operation is not restricted to a specific District zone and sometimes not even to Brazilian maritime zones. Those ships are a common means of interchange and interaction between the BN and the scientific community in maritime space research – especially after the creation of the Interministerial Commission for Sea Resources (*Comissão Interministerial para os Recursos do Mar*, CIRM) in 1974, as previously mentioned, and after the UNCLOS coming into force in 1994, which boosted some scientific programmes and projects.

The fourth group comprises the hospital ships, which will be referred to here as 'assistance force'. These ships have become crucial for attending to chronic social demands in regions where the only way to access the needy communities is through rivers. For that reason, they have been traditionally called Ships of Hope (Rodrigues, 2010).

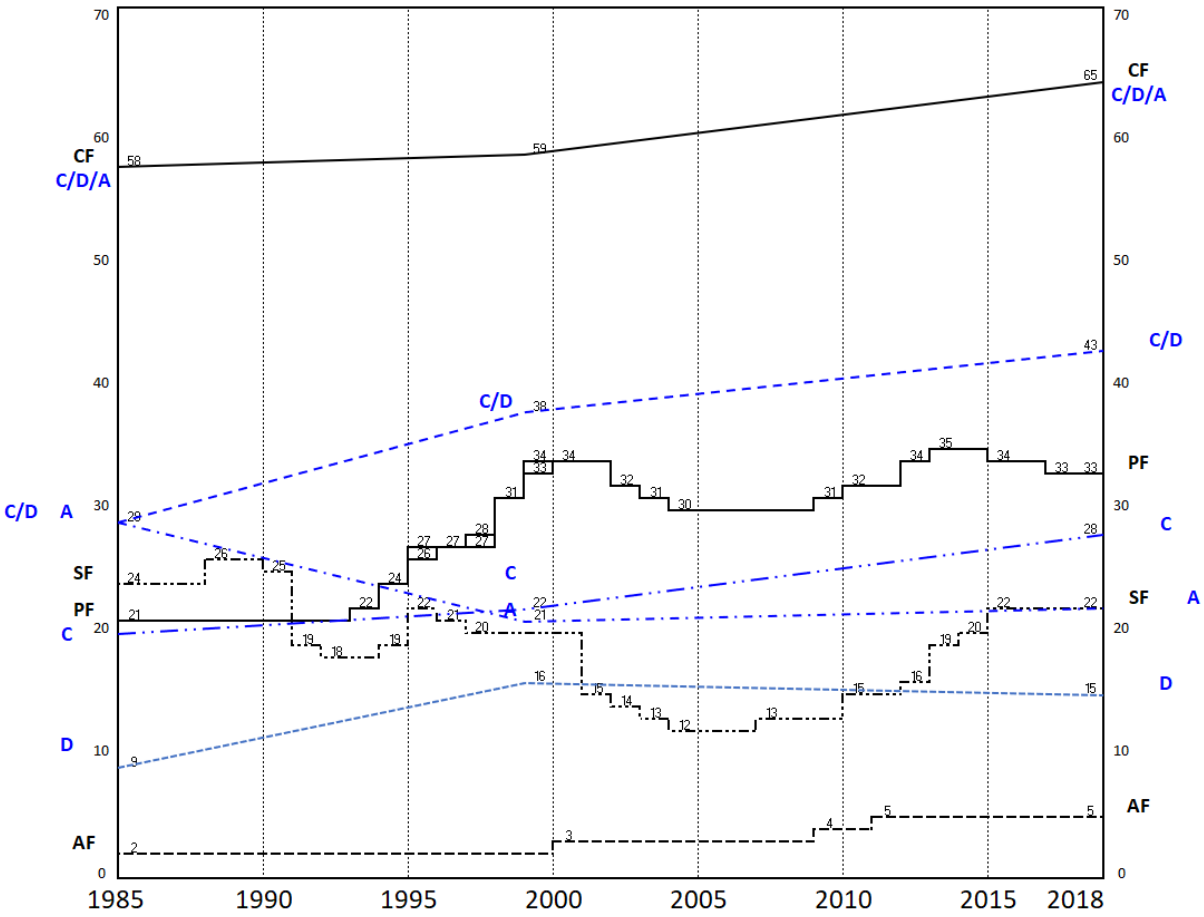
The Figure 3.6 shows the numbers and tendencies for these four forces of the Naval District and DGN.

Patrol force are understood to be a group of armed ships – with machine guns, usually 20 mm; and/or other guns, usually 40 mm or above. They are distributed along the Naval Districts, except the Seventh (Moore, 1985, pp. 55–56), the only one with no large navigable rivers or exit to the sea. Those Districts thus mainly include maritime environments – the First, Second, Third, Fifth and Eighth (from 1997 on); riverine environments – Sixth and Ninth (from 2005 on); or both – the Fourth Naval District.[135]

[133] The types of ships that featured over the timeframe include: hydrographic ships, hydrographic launches, buoy tenders, riverine hydro-oceanographic ships and riverine hydro-oceanographic launches (Marinha do Brasil, 2018a, 2019b; Moore, 1984, pp. 55–57).

[134] The list of types of ships over the timeframe include: oceanographic ships, oceanographic support ships, polar ships, hydrographic ships, hydro-oceanographic ships, hydro-oceanographic lighthouse tender ships, hydro-oceanographic research ships, hydrographic launches and research launches (Marinha do Brasil, 2018a, 2019b; Moore, 1984, pp. 55-57).

[135] It is worth noting that the difference between Naval Districts of the 'maritime environment', 'riverine environment', and 'maritime and riverine environments' makes sense only when we consider patrol forces, since these are the smallest size of what could be considered warships in Brazil. When considered the large numbers of the smaller boats, crafts and jet skis owned by those Navy port authority organisations – constabulary forces – spread all over the Naval Districts, it is clear that almost all Districts are somewhat hybrid. This is because, in fact, all Districts have at least some sort of inland waters (rivers, lagoons, lakes, etc.), which are sometimes added to maritime waters. The only ones that do not have maritime waters are the Sixth, the Seventh and the Ninth Naval Districts – just the former and the latter have patrol ships – with areas of responsibility encompassing only inland waters.



PF – Patrol force
CF – Constabulary force
CDA: *C – *Capitanias*; *D – *Delegacias*; *A – *Agências*
SF – Survey force
AF – Assistance force
* Port Authority, in three levels

Figure 3.6 – Naval/Maritime Forces 2. Created by the author

In 1985, a total of 21 patrol ships from five different classes were based across the then six existent Naval Districts; three of those classes were fitted for the riverine environment, totalling six ships.[136] In terms of origins, one class with 9 units was ordered by Brazil from the Netherlands,[137] and the other four classes were constructed in Brazil, of which one class was

[136] Pedro Teixeira class (2) riverine patrol ships were built in Brazil: they displace around 700 tons; are 64 m in length; and have one gun of 40 mm and six 12.7 mm machine guns, a helicopter deck and hangar. They were commissioned in the mid-1970s (Moore, 1984, p. 54; Poder Naval, 2018d). Roraima class (3), riverine patrol ships, were built in Brazil: they displace around 370 tons; are 46 m in length; have one gun of 40 mm, two 81 mm mortars, and six 12.7 mm machine guns. They were commissioned in the mid-1970s (Moore, 1984, p. 55; Poder Naval, 2018e). Parnaíba class (1), monitor, were built in Brazil: they displace around 700 tons; are 55 m length; have one gun of 3 in (76.2 mm), two 47 mm guns, two 40 mm guns, and six 20 mm machine guns. They were commissioned in the late 1930s and refitted in the mid-1990s (Poder Naval, 2018b; Saunders, 2016).
[137] The Imperial Marinheiro class (9), called corvettes (smaller) displace around 900 tons; are 56 m in length; have one gun of 3 in (76.2 mm) and four Oerlikon 20 mm machine guns. They were commissioned in the mid-1950s (Moore, 1984, p. 54; Poder Naval, 2018a).

built under an offshore agreement with the United States.[138] Clearly, while the economic crisis of the 1990s affected some classes of Fleet ships, the much cheaper patrol classes managed to thrive.

In 1988, a technology transfer agreement between Brazil and Germany permitted that 12 patrol ships – two built in Germany and 10 in Brazil – fitted for the maritime environment, were commissioned between 1993 and 2000 (Saunders, 2016).[139] In 1998, four former British River class minesweepers were added to the portfolio as patrol ships,[140] resulting in a total of 34 units in 2000, a significant increase of 62% in 15 years (Saunders, 2003, p. 67). With the decommissioning of the older Imperial Marinheiro corvette, mainly between 1995 and 2004, and with the commissioning of 5 units from two new classes between 2009 and 2013,[141] the number stabilised at 33 at the end of the timeframe (Saunders, 2016).

In operational terms, the patrol force, in Brazil, represents more of a symbiosis or an overlap between naval power and maritime power. As mentioned, they usually help constabulary forces in enforcing the law, although they are also entitled to safeguard sovereignty to a certain extent, as well as sovereign rights regarding the resources of the economic exclusive zone. A further important point in this symbiosis is the greater visibility those two forces – patrol and constabulary – have in Brazilian society compared to the operations of the Fleet, further away from the coast.

With regards to constabulary force, the figures have increased over time, with the number of CDAs totalling 58 in 1985 and going up to 65 in 2018 (Estado-Maior da Armada, 2018). Although the number of *Agências* – the lowest-ranked port authority – has decreased from 30 to 22, this has meant, at least in part, the promotion of some of them into *Delegacias*, or even into *Capitanias* (Estado-Maior da Armada, 2018). This movement also attests to the growing importance and demand for their services in their respective areas of jurisdiction (Estado-Maior da Armada, 2018). That inference is consistent with

the fact that the number of *Delegacias* has risen from 9 to 15 and *Capitanias* from 20 to 28. Moreover, as their varied tasks imply, these organisations can easily be regarded as an interface between the Navy and the local society at various levels, notably political, social, economic, legal and maritime. The integrated action with patrol force, which can act offshore for law enforcement, suitably covers part of the needed maritime actions. Finally, given the apparently growing demands of the Brazilian society over the last decades of the timeframe, as perceived by former Minister or Commanders of the Navy, and as deducted by the analyses of some naval and defence documents, these numbers are not surprising.

Admiral Moura Neto explains these opposing trends – fleet ships diminishing in numbers and patrol ships increasing – as a combination of factors (personal communication,

[138] Piratini class (6), patrol ships were built in Brazil under U.S. license Cape class: they displace around 105 tons; are 29 m in length; and have three 12.7 mm machine guns, and one 81 mm mortar gun. They were commissioned in the early 1970s and were subsequently refitted (Moore, 1984, p. 55; Poder Naval, 2018c).

[139] Grajaú class (12) ships displace around 200 tons; are 47 m in length; have one gun of 40 mm/70; and two Oerlikon GAM-B01 20 mm machine guns (Saunders, 2016).

[140] Bracuí class (4) ships displace around 900 tons; are 48 m in length; and have one gun of 40 mm/60 (Saunders, 2016).

[141] With regards to Macaé (2) and Amazonas classes (3): Macaé were built in Brazil: they displace around 500 tons; have one gun of 40 mm/70; and two Oerlikon GAM-B01 20 mm machine guns (Saunders, 2016). Amazonas are ocean patrol vessels that were acquired from the United Kingdom: they displace around 2,200 tons; have one gun of 30 mm DS30M Mk2; two guns of 25 mm DS25M; and two 12.7 mm machine guns (Saunders, 2016).

March 27, 2019). On the one hand, there is the increasing pressure from society for more services related to domestic waters, services delivered by less sophisticated ships like patrol ships (personal communication, March 27, 2019). On the other hand, ships for fleets are more technology-intensive, more sophisticated, which demand larger budgets, not always available (personal communication, March 27, 2019). Admiral Ilques follows the same rationale, adding that the fact of Brazil terminating in 1977 the Military Assistance Program of 1952 contributed, in a sense, to the number of fleet ships staying low, with the offer of this type of ship being declined from the United States, making Brazil to resort more specifically to European countries (personal communication, April 1, 2019). Admiral Guimarães Carvalho, while agreeing with this combination of factors, expressed his concerns about the low number of escort ships rather than helicopter carriers or amphibious assault ships, since those class of ships are the means to protect the whole fleet, and at same time help the more sophisticated professional education of a large number of young officers (personal communication, March 29, 2019). Finally, Admirals Mauro Cesar and Leal Ferreira consider the budget the main cause of these tendencies (personal communication, March 26, 2019; personal communication, March 21, 2019).

Regarding the survey ships (survey force), the figures have been maintained. There were initially 24 and, following a significant decline from the mid-1990s to mid-2010s, there were 22 at the end of the timeframe. Furthermore, as mentioned, the essential routine service of maintaining the navigation aids system along with the frequent activities oriented towards interactive research with the scientific community, and the relative low complexity of these ships – at least compared to Fleet combatants – ensured their stability.

Concerning hospital ships (assistance force), although there were not many of them, the two in existence since 1984 have enabled the Navy to extend Brazilian state support to communities in regions significantly difficult to reach. In the previous decades, assistance was provided by other classes of ships, like small corvettes, for instance. After the mid-1980s, resources were allocated for the employment of a specialised ship to provide such support, along with formal agreements between the Navy and other federal government ministries, such as the Ministry of Health. The two 1984 hospital ships built in Brazil were allocated to the Amazon region to assist distant riverine communities. Subsequently, as seen in the chart above, one more was commissioned in the same region in 2000, another in the Pantanal region in the Sixth Naval District in 2009, and a third to the Ninth Naval District in 2011 (Moore, 1984, p. 57; Saunders & Sharpe, 2001, p. 71; Saunders, 2012, p. 84). Due to their low complexity and the salt-free environment of these riverine regions, these ships usually have a longer durability, thus providing support for those communities for a longer time.

Having examined figures and tendencies in the Fleet as well as in the Naval Districts and DGN, it is important to address two components integral to these forces and then to Brazil's maritime strategy: the naval aviation and marines. By the same token, both can be divided into two branches: Fleet employment – associated with naval power – and Naval District activities – more connected to maritime power. As suggested by the analysed means and expected activities, naval aviation and marines are naturally mainly related to the military aspect of the functions of the Navy, but not only that, as will be examined in the following section.

Naval Aviation

Naval aviation history has presented interesting shifts since its beginning in Brazil in 1916[142] (FGV Projetos, 2016, p. 17). Such shifts included merging with the military aviation of the Army in 1941 to form the Brazilian Air Force (*Força Aérea Brasileira*, FAB), and then returning to its original form as a separate naval aviation in 1952,[143] which initiated disputes with the latter over air operations (FGV Projetos, 2016, pp. 17, 119). As mentioned in section 3.1.3, that dispute would come to a close with the presidential decree in 1965, which determined that only the FAB would operate the fixed-wing aircraft on-board the 1960-commissioned aircraft carrier *Minas Gerais* (FGV Projetos, 2016, p. 17). Thus, along with Navy helicopters, the *Minas Gerais* received on-board anti-submarine aircraft (S-2A and S-2E Trackers) from the First Embarked Aviation Group (*1° Grupo de Aviação Embarcado* – First GAE) of the FAB, from 1965 until 1998 (FGV Projetos, 2016, pp. 134–135). Over this period, the two forces shared Brazil's readiness with particular regards to the anti-submarine effort in the South Atlantic during the Cold War. At the end of this period, the first GAE was deactivated (FGV Projetos, 2016, pp. 134–135), and the Navy regained its right to operate fixed-wing aircraft (Brasil. Presidência da República, 1998a). The First GAE then became the Fourth Squadron of the Seventh Aviation Group ($4^{th}/7^{th}$ GAV), which executed maritime air patrol with land-based aircraft,[144] usually in coordination with the Navy (FGV Projetos, 2016, p. 134).

Concerning the Fleet (including support to DGN's survey ships), after the arrival of NAeL *Minas Gerais* to Brazil on February 1, 1961, the first two naval squadrons were activated in 1962. One was directed at a general purpose (First General Purpose Helicopter Squadron – HU-1) and the other at the practical qualification and instruction of naval pilots (First Training Helicopter Squadron – HI-1) (Estado-Maior da Armada, 2019).

They were followed by the creation or activation, still in the Fleet, of four squadrons, one in each decade: two before this study's timeframe, one at the beginning and one at end of the first part of the timeframe. These were the anti-submarine squadron in 1965 (First Anti-Submarine Helicopter Squadron – HS-1);[145] the surveillance and anti-submarine attack squadron in 1978 (First Reconnaissance and Anti-Submarine Attack Helicopter Squadron – HA-1);[146] another general purpose squadron in 1988 with more capable helicopters (Second General Purpose Helicopter Squadron – HU-2); and, after restarting the operation of fixed-wing aircraft, the interception and attack squadron in 1998 (First Interception and Attack Aircraft Squadron – VF-1) (Estado-Maior da Armada, 2019; FGV Projetos, 2016).

Concerning Naval Districts, apart from earlier moments, during isolated moments of the aviation in some parts of the country in the first half of the previous century, the following three District squadrons were formally established in the first part of the timeframe, in the mid-

[142] With the creation of the School of Naval Aviation.
[143] This return occurred with the Navy's creation of the Directorate of Aeronautics.
[144] This maritime air patrol was firstly carried out with the aircraft Bandeirante P-95 (EMB-111), and then with Orion P-3AM from 2011 onwards (Saunders, 2016).
[145] HS-1 was associated with the advent of NAeL *Minas Gerais* in 1961 and the prohibition of the operation of fixed-wing aircraft from 1965 onwards.
[146] HA-1 was associated with the advent of Niterói class frigates from 1976 onwards. Its name changed to First Squadron of Reconnaissance and Attack Helicopters in 1997 due to the upgrade of its helicopters in 1995, from SAH-11 (Lynx) to AH-11A (Super Lynx), and its subsequently widened mission (Estado-Maior da Armada, 2019).

to late 1990s, in the respective areas: the Third General Purpose Helicopter Squadron – HU-3, in 1994 in the Amazon region (then Fourth Naval District; Ninth Naval District after 2005); the Fourth General Purpose Helicopter Squadron – HU-4, in 1995 in the Pantanal region (Sixth Naval District); and the Fifth General Purpose Helicopter Squadron – HU-5, in 1998 in the Southern region (Fifth Naval District) (FGV Projetos, 2016, pp.209, 213, 217).

Naval aviation tendencies over the timeframe show a gradual increase in its capabilities and capacities. After beginning with the more primary but essential functions of training and general purpose in the early 1960s, the more specialised functions – usually to operate with Fleet ships – started to appear in the mid-1960s and in the late 1970s; anti-submarine with later added anti-surface capability developed in the late 1980s, thus expanding their general purpose to include more robust helicopters; and finally in the late 1990s, fixed-wing aircraft were developed to operate from the carrier.

The growing demands for naval aviation support in Districts induced the creation of general purpose squadrons in the mid- to late 1990s in three Districts, especially those more distant from the coastline and from the main base and naval airbase in Rio de Janeiro, thus closer to the Western borders. It is foreseeable that the creation of others would happen if there were available resources.

Marines

Nearly as old as the BN itself, the current Marine Corps (*Corpo de Fuzileiros* Navais, CFN, in Portuguese) – always a Navy component – has existed as such since 1932. It has been subject to doctrinal influence from a terrestrial force – the Brazilian Army – between 1932 and 1950, and from an amphibious force – the United States Marine Corps – from 1950 onwards, both converging to conduct amphibious operations (Cantídio, 2010, p. 70).

The gradual structuring of this 'marines force' came from the consolidation of two main types of activities, namely to:

> a. protect facilities of interest to the Naval Power in areas of the national territory; and
> b. project power as the terrestrial vector of the amphibious set [– ships and marines]. (Cantídio, 2010, p. 88)

Two main components of this force have respectively provided such a configuration, respectively: the Marines Group (*Grupamento de Fuzileiros Navais*, GptFN) and the Fleet Marines Force (*Força de Fuzileiros da Esquadra* – FFE) (Cantídio, 2010, p. 88). Regarding the former, the origin of the GptFN comes from the old Marines Regional Companies (*Companhias Regionais de Fuzileiros Navais*, CRFN) (Cantídio, 2010, p. 88). The first two were created in 1932, with the primary purpose of protecting the facilities of the only two naval bases outside Rio de Janeiro: in Ladário city and Belém city (Cantídio, 2010, p. 88).[147] The third, fourth and fifth companies – in the cities of Natal, Salvador and Recife, respectively – were created during the Second World War in the sensitive north-eastern part of the country (Cantídio, 2010, p. 88).

[147] The Ladário and Belém city facilities are, respectively, the current headquarters of the Sixth and Fourth Naval Districts.

After the war, more attention was directed to the southern part of Brazil, with the sixth and seventh companies – in the cities of Florianópolis in 1948 and Uruguaiana in 1955 (Cantídio, 2010, p. 89), respectively. In 1961, the GptFN was created in Brasília after the capital moved from Rio de Janeiro (Cantídio, 2010, p. 89). With the internal political crisis of 1963,[148] two GptFNs were created concerning the main ports of the country at the time: Santos and Rio de Janeiro (Cantídio, 2010, p. 89). The GptFN of Rio Grande – in the south – was created in 1983 with the transfer of the Fifth Naval District headquarters from Florianópolis city to that city, and the GptFN of Manaus – in the Amazon region – was created in 1985 due to the economic and military activity in that region (Cantídio, 2010, p. 92).

As a general framework, by the beginning of this thesis's timeframe, in 1985, every District had its own GptFN, as did the two main river basins: the Amazon and Paraguay River. Moreover, with the development of the riverine operations over time, the GptFN of Manaus was upgraded in 2002 to the Riverine Operations Battalion (*Batalhão de Operações Ribeirinhas*, BtlOpRib), and in 2016 a second BtlOpRib was created in Belém – the Fourth Naval District, in the northern region – thus upgrading the existent GptFN (Estado-Maior da Armada, 2018).

As Admiral (Marine) Cantídio – General-Commander of the Marine Corps from 1990 to 1994 – concludes, the driver for the progressive creation of GptFN was the varied and successive political, military and socio-economic frameworks, which induced the three main consolidated tasks of these units: 'riverine operations', 'defence of naval bases and facilities' and 'internal security operations' (Cantídio, 2010, p. 92).[149]

Regarding the power projection component, consolidated in the FFE, the marine forces' effective operational capability started after the procurement of four transport ships – classified as 'auxiliary' – from Japan in the mid-1950s, as mentioned (Cantídio, 2010, pp. 83–84). This stimulated the creation of the Navy Transport Force in 1956 and, along with other factors, the creation of the FFE in 1957 (Cantídio, 2010, pp. 83–84).

From 1964 onwards, the first operational exercise of a series called *Dragão* (Dragon) represented a landmark of amphibious operations in Brazil. In the 1970s, there were two contributions to the development of amphibious capability: one of a doctrinal-institutional nature, the PEM, as mentioned previously, and the other of a materiel nature with the U.S. Navy's transfer of two truly amphibious ships, the LST-type, to Brazil (Cantídio, 2010, pp. 94–96).[150] In 1980, as a result of the past gradual transformations, the highest-ranked marine officer is now a four-star admiral, which assigned subsequent more weight in the decision-making processes (Cantídio, 2010, p. 96).[151]

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[148] This internal political crisis culminated in the beginning of the military regime in the first half of 1964.

[149] The original decree of 1976 established for all Naval District Forces and GptFN the following operations: 'coastal patrol', 'naval police', 'port defence', 'maritime search and rescue', 'mining and countermining operations', 'riverine operations', 'defence of naval bases and facilities' and 'internal security operations' (Brasil. Presidência da República, 1976).

[150] These two amphibious ships were NDCC 'Duque de Caxias' and NDCC 'Garcia D'Ávila', as previously noted.

[151] Admiral (Marine) Monteiro highlights another important breakthrough for the Marine Corps as of 1980, allowed by the novelty of the four-star marine admiral: the CFN created its own training course (*curso de aperfeiçoamento*, in Portuguese). Prior to that, marines were trained in courses of the Brazilian Army and USMC (personal communication, Apr 1, 2019). Thenceforth, CFN started the development of its own doctrine, based on the USMC doctrine, but adapted to Brazil's and BN's reality (personal communication, Apr 1, 2019). As Admiral Monteiro states, this doctrinal approach would align with Admiral Flores and Vidigal's strategic assessment in

This was the configuration of the marine forces at the beginning of the timeframe (middle 1980s), with their two components – FFE and GptFN – one oriented towards amphibious capabilities, and the other generally towards assets to be protected in the national territory. These two components are complementary (Cantídio, 2010, p. 70; Monteiro, 2019). Despite the continuity in the marine forces' general capabilities over the whole timeframe, some topics should be highlighted in terms of marines' employment, especially with the appearance of the first END in 2008.

One topic is the expeditionary character explicitly ascribed to the marines, in the sense of expeditious and timely employment, at whatever level (Brasil. Ministério da Defesa, 2008, p. 21). In addition, the national archipelagos and oceanic islands have been included as assets to be protected with the marines' contribution (Brasil. Ministério da Defesa, 2008, p. 21).

A further topic relates to the use of the 'amphibious projection' concept, going beyond the classical amphibious operations to encompass a wider scope of activities, such as humanitarian assistance, population protection, and any kind of – new or old – threat, regardless of the hostility level (Monteiro, 2010, p. 22). In order to implement various types of missions, the organisational model adopted is referred to as 'marines operative groups' (*grupamento operativo de fuzileiros navais*), with a flexible, modular, and gradable character suitable to this wide variation of tasks (Monteiro, 2010, p. 13). The missions consider possibilities of employment for the benefit of the Maritime Authority in the Districts, including contribution to naval patrol and riverine operations, among other duties, as highlighted by Admiral (Marine) Monteiro – General-Commander of the Marine Corps from 2006 to 2010, now retired – interviewed by the author on April 1, 2019.

It is interesting to note how Admiral (Marine) Monteiro distinguishes the expeditionary character between the BN and the Brazilian Army. In the former, Marines expeditionary would mean a more expeditious aspect as opposed to the expedition feature in the latter (personal communication, Apr 1, 2019). This expeditious aspect would converge to the amphibious projection concept, which would demand more flexible and lighter units for some tasks, as noted (personal communication, Apr 1, 2019).[152]

The specific task of 'assurance of law and order' (*Garantia da Lei e da Ordem*, GLO) – defined in the Constitution of 1988, as previously mentioned – should also be noted, as marines, along with the Army, sometimes take part when it is activated. This occurs only with the president's approval when asked by any governor when assuming the situation – usually public security – went beyond the control of his/her state police forces. However, it can also happen preventively when the president deems there is a need for the armed forces to join other safety/security agencies in preparation for great events, for instance. This occurred in the

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the late 1970s, which will be addressed later (section 3.2.3). that the world as of 1980s would see more short-term regional conflicts than global ones (personal communication, Apr 1, 2019). Admiral (Marine) Monteiro also highlighted another doctrinal breakthrough in CFN: the creation of the Doctrinal Development Command of the Marine Corps (*Comando de Desenvolvimento Doutrinário do CFN*, CDDCFN, in Portuguese) in 2013, which represented a more systematic effort in developing marine doctrine within the BN (personal communication, Apr 1, 2019).

[152] In a constructive criticism approach, Admiral (Marine) Monteiro prefers the more flexible and precise 'amphibious projection' concept to Admiral (Marine) Cantídio's 'amphibious assault of limited objective` concept, since he believes that objectives were never limited, but compatible with the unit level (personal communication, Apr 1, 2019).

Olympics in Rio in 2016, when other elements of the Navy took part as well (Brasil. Presidência da República, 2016).[153]

As seen, in marines case, Brazil's history has also shaped the group of tasks and consequently their specific organisations and distribution across the country, as occurred with naval aviation. Thus, following this trend, one focus was developed in connection with the Fleet, via the FFE, as previously mentioned, which was subordinate to ComOpNav, while the other was developed via the GptFN throughout the territory. Similar to naval aviation, the marines are characterised by close interaction with other forces within the Navy, with their core concern being the preparation and development of the amphibious capability, with the Fleet ships as the main vector. Thus, flexibility is one of their main concerns, due to various types of actions they are involved in.

Because the BN is a middle-power navy, the marines have to adapt not only to the particularities of Brazil's geographic context, but also to its sometimes limited capacities. Although Brazil does not have a recent tradition or capability in power projection due to the posture of the country's foreign policy, expressed in its constitutional principles, that capability is conceptualised and somewhat trained by the marines, including their peacetime activities such as peacekeeping operations.

It is fair to say that the same multiplicity of tasks that ships must undertake can be observed, as a result, in the case of naval aviation and marines, since to some degree they have close interaction with all 'forces' presented – 'Fleet force', 'patrol force', 'constabulary force', 'survey force', and 'assistance force'. In that sense, they unavoidably contribute to Brazil's maritime strategy and naval strategic thinking.

All this set of forces – with naval aviation and marines somewhat permeating them – composes the Force Structure of the Navy. As they cover many aspects of naval power and maritime power concepts, they could be referred to as naval and maritime forces in the Brazilian conceptualisation, recalling that the same top-leader Admiral heads both aspects – as Commander of the Navy of the former and as Maritime Authority of the latter.

Additionally, as an inherent aspect of the functions of navies approach, the purpose set out for each 'force' is a necessary parameter besides the essential link to the use of the sea (and rivers). In that sense, two differences here start to become more evident. Firstly, the functions (purpose) examined somewhat extrapolate the traditional three functions. This is expected when a country, especially of Brazil's size, does not have a division between a 'pure' navy and a coast guard, for instance. But it seems to go further than that, when, for example, regular interactions, such as those between 'navy and social assistance' and hospital ships, and between 'navy and scientific community' and survey ships are noted over the whole timeframe. Thus, the means – normally ships – are usually maintained, but the purpose expands. Another difference refers to the means used. Inside the Navy, as seen in the case of the CDA set (*Capitanias, Delegacias* and *Agências*), for instance, land-based navy organisations, which may or may not interact with ships, use crafts and boats but also land teams to carry out inspections. Thus, the purpose is maintained – e.g. constabulary – and the means extrapolate.

[153] Admiral (Marine) Monteiro once more highlights the special feature of the Marine Corps of being able to act as a light and expeditious force, which favours it in these GLO operations (personal communication, Apr 1, 2019). His sole concern was the tendency of it being used as a political tool (personal communication, Apr 1, 2019).

With that in mind, it is worth addressing further cases of extrapolation of means and occasionally of purposes, which arguably are significant in Brazil's case. These cases are non-traditional because, on the one hand, they are not essentially conducted by ships, but by land-based navy organisations, sometimes together with ships, and sometimes not. On the other hand, even when conducted by ships, they are used beyond the traditional purposes of Booth's (2014) triangle. In that sense, what is intended here is to present the nation's view via its Navy, which needs to deliver results for these aspects, either from ships, from navy land-based organisations, or both.

Land-based Organisations

Three examples are addressed here from distinct moments of the Navy's recent history, intertwined with the timeframe. One is from the late 1970s, already cited in this thesis: the SECIRM case (Secretariat of the Interministerial Commission for Marine Resources) – directly related to CIRM – that alludes to scientific research purposes. The second example is when the Navy in 2000 assumed the post of the Permanent Representation of Brazil to the International Maritime Organization (*Representação Permanente do Brasil junto à Organização Marítima Internacional*, RPB-IMO), regarding diplomatic purposes, previously occupied by a representative from Brazil's Ministry of Foreign Affairs. The last refers to when the BN decided to transform its COMCONTRAM into a Maritime Security Integrated Centre (Centro Integrado de Segurança Marítima, CISMAR) in 2018, linked to, as the denomination shows, maritime security (military and constabulary) purposes.

The purposes related to all three examples can be expected to be fulfilled by ships, and they usually are, but not always together with a navy land-based organisation; not least to a significant scale as in Brazil's case. In the case of SECIRM and CISMAR, there is a close connection and even an indispensable interaction with ships, but with RPB-IMO the diplomatic results are not achieved with ships. At the same time, all three examples maintain a close connection with the sea. Even the RPB-IMO is fully – not physically, but thematically – related to sea matters and to maritime power, as treated in the Brazilian context.

SECIRM

SECIRM was created in 1979, as mentioned, with the purpose of 'advising the CIRM Coordinating Minister of State and executing the activities pertaining to the technical and administrative duties' of that Commission (Brasil. Presidência da República, 1979, p. 1). The CIRM itself, created in 1974, followed the tendency of some countries that perceived the need to create organisations to coordinate scientific activity at sea (Bakker, 1983, p. 103).[154] The fact that the Coordinating Minister has always been the Minister or Commander of the Navy,

[154] Some examples of this coordinated activity with the scientific community, as already mentioned, are: the United Kingdom, coordination with the Natural Environment Research Council in 1965; the United States, coordination with the National Council on Marine Resources and Engineering Development in 1966; and France, coordination with the National Centre for the Exploitation of Oceans (*Centre National pour l'Exploitation des Océans*) in 1967 (Bakker, 1983, p.103).

and the SECIRM a Rear Admiral, reveals the Navy's traditional leading role on these works concerning marine resources with the help of other ministries related to the sea[155].

The main object of the CIRM has been the already cited National Policy for Marine Resources (PNRM), whose basic guidelines were approved by Brazil's President on May 12, 1980 (Brasil. Ministério do Meio Ambiente, 2018). An update was necessary in 2005 due to 'notable changes in the international and domestic scenarios regarding the sea, oceans and coastal zones', especially the UNCLOS, which came into force in November 1994 (Brasil. Presidência da República, 2005a, p. 1).

Thus, many relevant developments came from the first PNRM, which ultimately provided, as will be seen, elements underpinning the already addressed Blue Amazon concept. This policy unfolded in four main plans or programmes: the Sectorial Plan for Marine Resources (*Plano Setorial para os Recursos do Mar*, PSRM), initiated in 1982, with a pluriannual edition, usually every four years;[156] the Brazilian Antarctic Programme (*Programa Antártico Brasileiro*, PROANTAR), also in 1982; the National Plan for Coastal Management (*Plano Nacional de Gerenciamento Costeiro*, PNGC), in 1988; and the Brazilian Continental Shelf Survey Plan (*Plano de Levantamento da Plataforma Continental Brasileira*, LEPLAC), in 1989.

It is worth addressing three of these to explore the more intensive contact between the Navy and its ships and the scientific community: PSRM, PROANTAR and LEPLAC. Interestingly, this set of actions comprises a movement that started to grow faster in the 1980s, which encompasses the beginning of this thesis's timeframe. The PSRM,[157] now in its ninth edition, steadily added a set of so-called Actions and Programmes executed by this interaction between the Navy – via SECIRM and survey ships – and the sea-related segments of the Brazilian scientific community. There were a total of four actions and programmes created between 1994 and 1997,[158] and six more between 2005 and 2009 (Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2019).[159] To sum up, it can be said the

[155] Admiral Moura Neto made a point of partially attributing the success of this traditional relationship between the Navy and the scientific community and ministries in Brazil to the apolitical posture of the Navy (and armed forces in general), concentrated on the technological matters regardless of the ruling government (personal communication, March 27, 2019). He also stated that, different from Army (with IME – *Instituto Militar de Engenharia* – it stands for Engineering Military Institute) and Air Force (with ITA – *Instituto Tecnológico da Aeronáutica* – it stands for Air Force Technological Institute), the BN chose not to have its own research centre (personal communication, March 27, 2019). Instead, it stablished research partnerships with public universities for the technical qualification of part of its personnel, which helped the Navy to have a better integration with the scientific community as well (personal communication, March 27, 2019).

[156] The Sectorial Plan was laid out as follows: I PSRM, 1982–1985; II PSRM, 1986–1989; III PSRM, 1990–1993; IV PSRM, 1994–1998; V PSRM, 1999–2003; VI PSRM, 2004–2007; VII PSRM, 2008–2011; VIII PSRM, 2012–2015; IX PSRM, 2016–2019 (Estado-Maior da Armada, 2019).

[157] PSRM's objectives were: to evaluate the potential of the sea, as well as to monitor the living and non-living resources and the oceanographic and climate phenomena of the marine areas under national jurisdiction and of national interest, aiming for the management and sustainable use of these resources, and the fair and equitable distribution of the benefits derived from such use (Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2019).

[158] The four actions and programmes created between 1994 and 1997 were: REVIZEE (1994), PROARQUIPÉLAGO (1996), REMPLAC (1997) and GOOS-BRASIL (1997) (Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2019).

[159] The six programmes between 2005 and 2009 were: AQUIPESCA (2005), BIOMAR (2005), PPG-MAR (2005), REVIMAR (2005), PROTRINDADE (2007) and PROAREA (2009) (Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2019).

PSRM has been characterised by a particularly holistic approach to sea-related scientific matters regarding the jurisdictional waters and beyond, always guided by the international maritime rule of law.

The PROANTAR has been another programme of relevance to the country, which defines how Brazil should participate in scientific explorations of the Antarctic continent (Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2018). It was a necessary result of Brazil adhering to the Antarctic Treaty in 1975 (Secretariat of the Antarctic Treaty, 2011). In 1982, Brazil executed its first Antarctic Operation with the first Brazilian Oceanographic Support Ship '*Barão de Teffé*', which was procured by the Navy from Denmark (Sharpe, 1988, p. 58). That operation granted Brazil the right to take part in the treaty as a consultative party in 1983 (Secretariat of the Antarctic Treaty, 2011). From then until 2018/2019, there has been a total of 37 such operations executed by six survey ships (Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2018).[160]

The LEPLAC has been an important plan, for its results were underlined by the established legal framework of the Law of the Sea. In fact, given its nature, it could be subsumed into the PSRM, but its potential results on the legal extension of the country's continental shelf certainly made it stand on its own.

On the continental shelf limits, the UNCLOS states:

> Where a coastal State intends to establish, in accordance with article 76, the outer limits of its continental shelf beyond 200 nautical miles, it shall submit particulars of such limits to the Commission along with supporting scientific and technical data as soon as possible but in any case within 10 years of the entry into force of this Convention for that State. (UNCLOS, 1982, p. 146)

Thus, in 1989, Brazil initiated this plan with the 'purpose of establishing the outer limit of its continental shelf' (Brasil. Presidência da República, 1989), over which it could exercise the correspondent sovereign rights for the purpose of exploring its natural resources as defined by Article 77 of UNCLOS (UNCLOS, 1982, p. 54). LEPLAC activities have been conducted in two phases for the time being (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). They are coordinated by the CIRM and developed by the Navy's Directorate of Hydrography and Navigation (DHN), the Petrobrás oil company and the Brazilian scientific community (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). The data survey was, in fact, initiated in 1987, with the Navy's Oceanographic Ship '*Almirante Câmara*', and the data collection finished in 1996,[161] with the total participation of four ships from the Navy's survey force, as this thesis labels it (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a).

[160] The six survey ships involved were an: Oceanographic Ship (NOc) '*Professor Besnard*', of University of São Paulo (Universidade de São Paulo – USP); Oceanographic Ship (NOc) '*Almirante Câmara*'; Oceanographic Ship (NOc) '*Almirante Álvaro Alberto*'; Oceanographic Support Ship (NApOc) '*Barão de Teffé*'; Oceanographic Support Ship (NApOc) '*Ary Rongel*'; and a Polar Ship (NPo) '*Almirante Maximiano*', of the BN (Secretaria da Comissão Interministerial para os Recursos do Mar - SECIRM, 2018).

[161] The data collected covered around 330,000 km of seismic, bathymetric, magnetometric and gravimetric profiles along the entire length of the Brazilian continental margin (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a).

The Brazilian continental shelf within 200 NM encompassed around 3.44 million km^2 already (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). It would go up to 4.4 million with the processed proposal submitted, presented, and defended to the Commission on the Limits of the Continental Shelf of the United Nations (CLCS) in 2004, claiming 960,000 km^2 beyond 200 nautical miles (NM) (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). The CLCS, after detailed analyses and meetings, issued recommendations to the Brazilian government in 2007, agreeing with around 80% of the claimed area (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). Then, in 2008, Brazil decided to initiate a revision of the submission, starting a second phase of data surveys[162] with five ships of its survey force (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). The Brazilian continental margin was divided into three areas: equatorial, east and meridional (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). In 2015, a partially revised submission was sent to the CLCS, with the Brazilian southern region inserted in part of the meridional continental margin, which was fully approved in March 2019 (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). In 2017, the equatorial continental margin claim was submitted and in December 2018 the east/meridional claim was also submitted, both with analyses still to be conducted by CLCS (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a). If approved, the Brazilian continental shelf could reach up to 5.7 million km^2 (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a), representing more than half of its territorial land. In 2019, surveys were still collecting more data via the actions of ships like the Oceanographic Research Ship '*Vital de Oliveira*', commissioned in 2015 and operated by the Navy but procured as a partnership between the Navy, Petrobrás, Ministry of Science, Technology and Innovation, and Vale mining company (Redação Defesa TV, 2019; Saunders, 2016).

The modus operandi and implications of SECIRM, the first non-traditional case as means – started in the 1970s – have gained increasing complexity over the whole timeframe. With the exception of the PNGC, which presents a more inland focus, with onshore activities along with the 17 coastal states in Brazil, out of 27 (Brasil. Ministério do Meio Ambiente, 2018), the other three initiatives within the SECIRM case represent a greater interaction between the Navy and sea-related research. It can be said that each of them corresponds to a specific physical front: the PSRM, with the whole Blue Amazon front, corresponding in practical terms to the Brazilian jurisdictional waters and beyond; the PROANTAR, with the Antarctic continental front; and the LEPLAC, with the continental shelf front, which in fact is a subset of the first.

Apart from the leading role of the Navy in these scientific initiatives, their results have implications for the asset-driven security position of the Navy, adding more value to it, and granting Brazil the possibility, as seen, of achieving 5.7 million km^2 of continental shelf under the UNCLOS framework. On the one hand, this close scientific interaction of the Navy extrapolates Booth's and Grove's functions of navies approach, as initially suggested. Although 'resource enjoyment' is part of their conceptualisation, the Navy's role in the above

[162] The data collected encompassed around 440,000 km of seismic, bathymetric, magnetometric and gravimetric profiles (Secretaria da Comissão Interministerial para Recursos do Mar - SECIRM, 2019a).

analysis – with its intensity and regularity – apparently goes well beyond the constabulary duties towards safeguarding the enjoyment of that asset. On the other hand, the very constabulary role of 'resource enjoyment' has seen its value increase, as noted, not only with the current potential of exploitation of the many resources like those of mineral nature, but also with the growing offshore exploitation of oil and gas since the 1960s. The ensuing effects are increasingly noted in the naval documents (policies, strategic statements, and doctrines), and in defence documents as well, as already seen. In that sense, the growing emphasis on the constabulary role advances also into the military role, given the asset-driven threat narrative towards any major risk to the facilities related to that exploitation. Besides, this combination – constabulary and military – adds value to the maritime security approach as well. Thus, the implications of these developments for the Navy have many forms, reaching also its idealised force structure, as seen, and ultimately its strategic thinking.

RPB-IMO

While the SECIRM focuses on the Navy's scientific research approach, the case of the Permanent Representation of Brazil to the International Maritime Organization – RPB-IMO[163] – focuses on the Navy's diplomatic approach. The role of warships as diplomatic tools is well known as an important aspect of any part of the peace-war spectrum, being either more cooperative or more competitive. However, in this case, although that position has always been occupied by professional diplomats, the Brazilian government decided in 2000 to transfer it to the Navy, to be occupied by a retired four-star admiral (Brasil. Presidência da República, 2000). The purpose of the RPB-IMO is to 'integrally exercise the representation of national interests to that organisation' (Brasil. Presidência da República, 2000, p. 1).

The International Maritime Organization (IMO) itself, with the advent of the United Nations, was formally established by convention in 1948 – Brazil being one of the 36 States to prepare and approve it – and came into force in 1958.[164] It met as an organization for the first time in the following year (International Maritime Organization - IMO, 2019a; Pereira, 2014, p.418). Its mission statement is:

> […] to promote safe, secure, environmentally sound, efficient and sustainable shipping through cooperation. This will be accomplished by adopting the highest practicable standards of maritime safety and security, efficiency of navigation and prevention and control of pollution from ships, as well as through consideration of the related legal matters and effective implementation of IMO's instruments with a view to their universal and uniform application. (International Maritime Organization - IMO, 2019a, sec.IMO's mission statement)

[163] Although in the BN's organogram this Permanent Representation is labelled as RPB-OMI (its abbreviation in Portuguese), it is always referred to as RPB-IMO by the Navy's military and authorities; thus, in this thesis it will usually be referred to by the latter designation.

[164] The IMO's original name was the Inter-Governmental Maritime Consultative Organisation, or IMCO, and was changed to IMO in 1982 (International Maritime Organization - IMO, 2019a).

The gradual transformation of the IMO's structure[165] over time corresponded to the constant increase of shipping demand around the world, with ever-increasing technology added to its functions, thus directly involving the aspects of safety, security, pollution, and so forth. Relevant and well-known conventions were created to deal with these aspects, such as the International Conventional for the Safety of Life at Sea (SOLAS) in 1960; the International Convention for the Prevention of Pollution from Ships in 1973, modified in 1978 (MARPOL 73/78); the International Ship and Port Facility Security (ISPS) Code in 2004; the Convention for the Suppression of Unlawful Acts (SUA) Against the Safety of Maritime Navigation in 2005, along with other instruments and amendments (International Maritime Organization - IMO, 2019a).

In Brazil, the Ministry of Foreign Affairs (*Ministério das Relações Exteriores*, MRE) had always managed the Brazilian maritime interests at the IMO. The BN, traditionally exercising the practical responsibilities of a maritime authority – a practice inherited from the Portuguese – has always had active participation in that matter (Pereira, 2014, p. 419). In 1970, the Navy assigned a senior officer firstly as a participant in the Secretariat of the IMO, and from 1981 onwards as a maritime consultant in the Brazilian Embassy in London, as an adviser (Pereira, 2014, p. 419). In the 1980s and 1990s, MRE's perception of difficulties in the role led to an interministerial working group (Pereira, 2014, p. 419). Besides the growing intensity of the work at the IMO, there were difficulties related to coordination and the lack of participation of Brazilian representatives from the government and the maritime community (Brasil. Ministério da Marinha, 1997b, 1998b). In response, in 1997, the Navy proposed modifications to this systematisation, which led in 1998 to the creation of the Coordinating Commission for IMO Affairs (*Comissão Coordenadora de Assuntos da IMO*, CCA-IMO), an Interministerial Group (Brasil. Ministério da Marinha, 1997b, 1998b). It was suggested that this should be conducted by the MRE, but finished under the coordination of the Navy Staff (Estado-Maior da Armada, EMA) (Pereira, 2014, p. 419). Its purpose was to widen the participation of ministries, public agencies, and class entities (Brasil. Ministério da Marinha, 1997b, 1998b; Pereira, 2014, pp. 419–421). A Consultant Forum, with representatives of the maritime community, and an Executive Secretariat (SEC-IMO) were created, linked to the CCA-IMO, for its administrative and technical support, with SEC-IMO absorbed by another naval organisation, the Directorate of Ports and Coasts (*Diretoria de Portos e Costas*, DPC) (Pereira, 2014, pp. 420–421).

Nonetheless, the shift did not stop there, as noted, as a presidential decree in 2000 transferred the position of Permanent Representative from the MRE to the Navy. The first Admiral to be chosen for such a position, for a two-year mandate, was Admiral Mauro Cesar, already retired, the last Minister of the Navy, from 1995 to 1998. In his assessment, the growing technical requirements, complexities and intense negotiations on maritime matters in the Organization demanded not only diplomatic skills, but maritime experience and exclusive dedication, something that MRE had difficulties coping with (Pereira, 2014, pp. 421–422).

[165] The IMO consists of an assembly, a council, five main committees, and a number of sub-committees: The committees are the Maritime Safety Committee (MSC), the IMO's highest technical body; the Marine Environment Protection Committee (MEPC), raised to this level in 1985; the Legal Committee, established in 1967; the Technical Cooperation Committee, institutionalised in 1984; and the Facilitation Committee, institutionalised in 2008 (International Maritime Organization - IMO, 2019a).

Moreover, the Navy has arguably showed more structural ability to coordinate such work, as the creation of the systematisation with CCA-IMO and SEC-IMO, played by Navy organisations, had apparently demonstrated.[166] Then, following the presidential decree, the Navy created the organisation called RPB-IMO in 2000,[167] with the purpose of giving support to the Representative. It composed the Navy's organogram from that moment onwards, and was subordinate to the Navy Staff (Estado-Maior da Armada, 2018).

In Admiral Mauro Cesar's experience, the distinct approach of the new structure, with exclusive dedication, increased the presence of Brazil in various conferences and meetings (Pereira, 2014, pp. 425–426). As he claims, this caused Brazil's delegations to be asked to have even more involvement in the Organization (Pereira, 2014, pp. 425–426). The rise in prestige, according to him, was reported by Brazilian technicians who were participants of committees, sub-committees and working groups, but also by the Secretary-General of the periods from 1990–2003, Mr William O'Neil (Canada); 2004–2011, Mr Efthimios Mitopoulos (Greece); and 2011–2015, Mr Koji Sekimizu (Japan) (Pereira, 2014, p. 426). In his interview with the author, Admiral Mauro Cesar noted the 'evident satisfaction' demonstrated by the Brazilian maritime community when the Navy assumed that post (personal communication, March 26, 2019).

Domestic positive impacts in Brazil were also noted by the first Permanent Representative from the Navy. There was a growing partnership between the Navy and Petrobrás, via its research centres, and the involvement of the Ministry of Transports (MT), of Environment (MMA), National Agency for Sanitary Vigilance (ANVISA), National Agency for Waterborne Transport (ANTAQ), National Agency for Oil, Gas and biofuels (ANP), Federal Police (PF) and others (Pereira, 2014, pp. 426–427).

Apart from the increase of any diplomatic benefits for Brazil in maritime affairs, it can be noted from the Admiral's remark that the IMO, with 174 Member States, is, in practical terms, an international maritime authority (International Maritime Organization - IMO, 2019b; Pereira, 2014, p.410). In that sense, the fact that the Commander of the Brazilian Navy is the formal maritime authority in Brazil arguably facilitates the alignment of the conditioning factors from the IMO's deliberations to the wider scope of Brazilian maritime affairs.

The Admiral also noted that the Navy has not been a ministry since 1999, having been subordinate to the MoD since then. Even so, the RPB-IMO has kept among its tasks the coordination of the Interministerial Group, via CCA-IMO (Pereira, 2014, pp. 432–433). This is similar to the case of CIRM since 1974 – assisted by SECIRM since 1979 – and even after 1999, when the Commander of the Navy continued to coordinate the activities of other ministries on marine resources matters (Pereira, 2014, pp. 432–433). Since 2000, that configuration has exposed an unusually permanent diplomatic duty, with a navy land-based organisation replacing professional diplomatic bodies, which contrasts with usual naval diplomacy via ships and defence cooperation.

[166] There is also an apparently frequent interaction between diplomats and the RPB-IMO at the IMO; they are from the MRE organisation in London called REBRASLON (Permanent Representation of Brazil to International Organisations in London) (Brasil. Ministério das Relações Exteriores, 2019).

[167] Apart from a four-star admiral, the RPB-IMO team is composed of an active captain – the former maritime consultant – who acts as an alternate permanent representative, another superior officer, a merchant navy officer, and a few local contracted attendants (Pereira, 2014, pp. 424–426).

The nature of maritime affairs, as suggested, along with the tradition of the Navy as coordinator of multiple agencies for a wide array of maritime subjects in the Brazilian State certainly has prepared it for other initiatives like the RPB-IMO. Additionally, we can see the intensity and frequency with which the Navy is involved in maritime matters in Brazil as a state tool beyond defence, where the Navy has remarkable interactions with segments of society in Brazil and abroad. This is a tendency that the creation of the MoD, as a watershed event, seemed not to have weakened.

CISMAR

The third example of a non-traditional case is the Maritime Security Integrated Centre (*Centro Integrado de Segurança Marítima*, CISMAR). As noted, it was referred to as the Maritime Traffic Naval Control Command (*Comando do Controle naval do Tráfego Marítimo*, COMCONTRAM) until October 2018. As its current denomination points to maritime security, it includes both the military and constabulary approaches. Its predecessor, COMCONTRAM, had the following main tasks:

> to monitor maritime traffic of national interest, particularly in the South Atlantic Maritime Area ([*Área Marítima do Atlântico Sul* –]AMAS) and in areas subject to hostile action by countries in conflict; [and] to monitor foreign maritime traffic in waters under national jurisdiction. (Estado-Maior da Armada, 2018, p.1)

All other tasks hinge on these. They address topics like disseminating the doctrine of maritime traffic naval control (CNTM, in Portuguese) to agencies set to work alongside COMCONTRAM in contingent situations on maritime traffic; planning and participating in CNTM national, regional and international exercises; exchanging information on maritime traffic with domestic civilian, regional and international organisations; and acting as a point of support and protection for merchant ships (Estado-Maior da Armada, 2018). The purpose of those tasks culminates in 'contributing to the maritime traffic safety and security, and meeting the international commitments made by Brazil regarding CNTM' (Estado-Maior da Armada, 2018, p.2).

In the context of the post-war and the Inter-American Treaty of Reciprocal Assistance (IATRA) of 1947, the Inter-American Maritime Traffic Defence Plan (PLANDEFTRAMI) was created by the navies of the IATRA contracting countries in 1959 (Coordinador del Area Maritima del Atlantico Sur - COAMAS, 2019). It happened under the guidance of the Inter-American Defence Board (IADB) to face the threats, usually submarine, to the maritime traffic in the region (Coordinador del Area Maritima del Atlantico Sur - COAMAS, 2019). In the II Inter-American Naval Conference (IANCA) of 1966, it was substituted by the Inter-American Maritime Traffic Defence Coordination Plan (CODEFTRAMI), which divided in four the maritime areas encircling the Americas (Coordinador del Area Maritima del Atlantico Sur - COAMAS, 2019). Thus, in 1967 the Coordination for the South Atlantic Maritime Area (CAMAS) was created, with Brazil, Argentina, Paraguay, and Uruguay as members (Coordinador del Area Maritima del Atlantico Sur - COAMAS, 2019). Within that context, COMCONTRAM was created in the Navy in 1968 – together with ComOpNav and subordinate to it – to manage the control and protection of maritime traffic of Brazilian interest and, by the

same token, keep direct links and coordination with CAMAS regarding the South Atlantic maritime area (Brasil. Ministério da Marinha, 1969; Brasil. Presidência da República, 1968; Caminha, 1989, pp. 60–61).

As a decision-making support tool to manage information sharing on maritime traffic control, the Maritime Traffic Information System (*Sistema de Informações sobre o Tráfego Marítimo*, SISTRAM) has been applied and developed.[168] It is in its fourth version and receives inputs from a number of platforms and domestic, regional and international systems. Among them are the Trans-Regional Maritime Network (T-RMN), Long-Range Identification and Tracking System (LRIT), Automatic Identification System (AIS), Maritime Safety and Security Information System (MSSIS), National Programme for Fishing Vessel Tracking by Satellite (PREPS, *Programa Nacional de Rastreamento de Embarcações Pesqueiras por Satélite*), Oil Activities Support Maritime Monitoring System (SIMMAP, *Sistema de Monitoramento Marítimo de Apoio às Atividades do Petróleo*),warships, and naval and air force aviation (Estado-Maior da Armada, 2018). As outputs, SISTRAM provides information for decision-making actions to areas and users like Search and Rescue (SAR) services, Environment service support, the National Agency for Waterborne Transport (ANTAQ), the Brazilian Fleet and Air Force, Maritime Authority enforcement, statistics studies, among others. In the case of SAR services, it is worth remembering that Brazil's SAR area in the South Atlantic mounts to over 15 million km^2, almost two times its land territory, as mentioned (Estado-Maior da Armada, 2019; see also Figure 3.7).

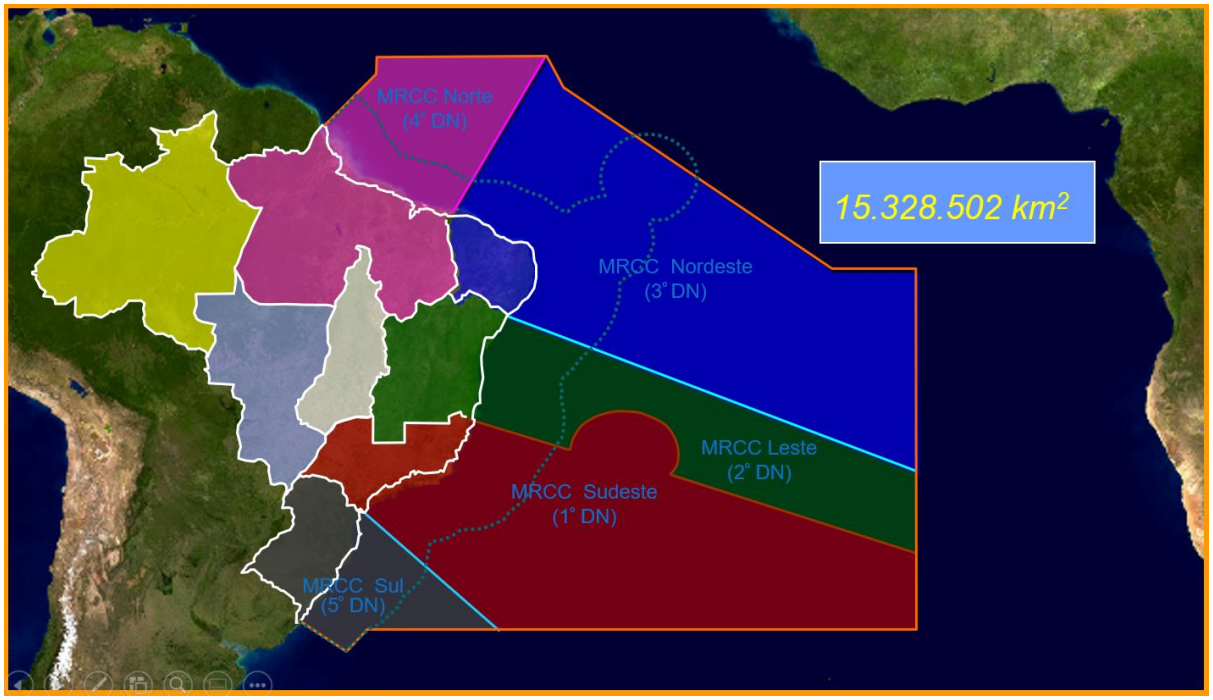


Figure 3.7 – Brazilian SAR Maritime Area (Estado-Maior da Armada, 2018)

[168] Such types of 'ship reporting systems' were required by the SAR 1979 Convention, combined with the SOLAS 1974 Convention for all their parties (International Maritime Organization - IMO, 2019c, 2019d).

All this information sharing demands frequent exercises to improve and implement available doctrines. As examples, in the CAMAS area, the following exercises occur: COAMAS, TRANSAMERICA, and TRANSOCEANIC. These are accompanied by other extra-regional exercises – T-RISE (T-RMN countries, led by Italy, Brazil, and Singapore), MARIX (T-RMN countries), and BELL BUOY (PACIOSWG, Pacific and Indian Oceans Shipping Working Group – to train NCAGS, a NATO doctrine related to naval cooperation and guidance shipping) (Estado-Maior da Armada, 2018). As mentioned above, the increase of maritime traffic between countries in distinct dimensions, and the growth of available technology, as well as risk and threat perceptions (e.g. with the 9/11 terrorist attacks), have seemingly driven initiatives towards more integration and information sharing.

In the case of Brazil, the involvement of armed forces in inter-agency activities in the Rio 2016 Olympic and Paralympic Games appeared to have been a watershed moment (Estado-Maior da Armada, 2019), especially in the Navy's case, where COMCONTRAM acted as the 'maritime security centralizing body' for the event (Estado-Maior da Armada, 2019, p.1). That experience inspired the Navy's rearrangement with other agencies also interested in sharing an established structure, which could facilitate their work in dealing with their own issues in the maritime security domain. The results are evident in the Navy initiative towards CISMAR, which, as announced, meant the Navy's increasing contribution to 'the integration with Maritime Power government agencies,' seeking 'the increment of maritime situational awareness [(MSA)]' (Estado-Maior da Armada, 2019, p.1).

On the one hand, CISMAR would focus on 'permanent coordination' with agencies such as the Federal Police (PF), Sanitary Vigilance National Agency (ANVISA), Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), National Commission for Public Safety in Ports, Terminals and Waterways (CONPORTOS), Chico Mendes Institute for Biodiversity Conservation (ICM-Bio), as well as Maritime Authority agencies in the Navy, like the CDA, and operative Navy organisations responsible for maritime security (Estado-Maior da Armada, 2019). On the other hand, it provided support for the MSA over the national territory and Brazilian jurisdictional waters, with the so-called Maritime Security Local Centres (CLSM, in Portuguese) to be operated in each and every Naval District, focusing on maritime security in their own specific jurisdictional areas, and becoming integrated with CISMAR (Estado-Maior da Armada, 2019). While Navy ships are sometimes indispensable for many of these constabulary activities, usually aiding government agents to practice enforcement on those domains (Marinha do Brasil, 2019g), the growth of interaction with government institutions shows a greater land articulation. Admiral Ilques argues that the increasing and more complex issues at sea tend to close the gap between security (related for instance to PF) and safety (related for instance to ANVISA) aspects, which, on the one hand, increases inter-agency operations, and, on the other, with structures like CISMAR created by the Navy bringing the needed adjustments to tackle these issues, diminishes any possibility on the creation of a coast guard in Brazil (personal communication, April 1, 2019). Admiral Moura Neto, in turn, remembers the close link between CISMAR and the development of the strategic programme called SisGAAz, which would be crucial to enhance the situational awareness capability not only to the BN but also to all agencies mentioned that have interests at sea (personal communication, March 27, 2019).

Finally, in the history of COMCONTRAM, eventually becoming CISMAR, there is a known tendency for the maritime security to widen its approaches. The initial Cold War focus on warfighting, with the protection of maritime traffic against traditional threats, has gradually encompassed concerns with threats and risks to other activities beyond defence in dimensions like society, environment and the economy against crimes and unlawful acts. The Navy's move towards a more intensive and articulated multi-agency interaction with CISMAR demonstrates that tendency. This is not a novelty, as seen in the cases of CIRM/SECIRM and even RPB-IMO. In the former, the varied segments of the scientific community gained benefits from being able to disseminate maritime-related scientific results to the country; and in the latter, through necessary interactions with the Consultative Forum – maritime community representatives – and the Interministerial Group, Brazil's maritime interests could be defended in a diplomatic arena. Thus, maintaining the fundamental link to the use of the sea (and rivers) either by employing (or not) traditional means (ships), or by seeking (or not) the traditional purposes of Booth's and Grove's triangle, these non-traditional cases in the example of Brazil aggregate to what the function of navies can deliver to the country.

Missions and Activities

As previously noted, the mission statements have fulfilled the purpose of helping frame how the force has been expected to be deployed in its many activities. In doing so, the whole Naval Force section would arguably provide an overview of how the practice level contributed – along with the historic level (chapter 2), the thought and practice levels (section 3.2.1), and the forthcoming thought level (section 3.2.3) – to the understanding of the Brazilian maritime strategy and its naval strategic thinking over the timeframe.

This section will analyse the groups of missions at their specific moments, also relating them to sources available in this thesis. The first one is the 1988 Constitution, which, as seen in the 'Constitutional Framework and the Military' section, provides what could be called the 'fundamental mission' for the armed forces, as follows:

> Article 142. The Armed Forces, consisting of Navy, Army and Air Force, are permanent and regular national institutions, [...] and are destined to the defence of the Homeland, to the assurance of the constitutional powers, and, by initiative of any of them, of the law and order. §1. Complementary law will establish general rules to be adopted for the organization, preparation and employment of the Armed Forces. (Brasil. Presidência da República, 1988, No. 142)

As noted in section 3.1.1, both this and the 1967 Constitution amended texts foresee outward and inward postures, depending on circumstances. However, although this fundamental mission underscores all service activities, the Navy itself has needed a more aligned and detailed approach, expressed in its mission statement, as will be seen. It appeared to be a necessary development consistent with the range of activities the Navy has performed – with adjustments deemed necessary – over time.

Five periods are addressed: one prior to our timeframe, and four over the timeframe. The first period covers from 1979 to 1983 and extends to 1997. This starting point is important

because it sets the stage for the first part of the timeframe. The second is from 1997 – right after the publication of the first PDN in 1996 – to 2003. The third is from 2003 to 2008, the fourth from 2008 to 2017, and the fifth from 2017 onwards. As previously indicated, the sources in which the missions appear are either the naval policies or naval doctrines, or sometimes both. As the PEM has sometimes assumed the role of a naval policy – especially after 2008 – it has included the Navy's mission for some time. Naturally, the stated mission has appeared in more than one document. More recently, the LBDN of 2012 and 2016 – the highest-level defence declaratory documents – have disseminated the Navy's mission as well.

1979 to 1997[169]

Starting with the background period, the first version of the mission was found in the 1979 Basic Policies and Guidelines, and then in the 1979 DBM, 1980 PBM, 1981 DBM, 1983 PBM, and the 1983 DBM.[170].

The Navy's stated mission was:

> To guide the preparation and employment of the Maritime Power and to prepare and employ the Naval Power, in peace and war, to fulfil the following tasks, in the form and extent adequate to the situation:
> – to control the maritime areas necessary for the maintenance of sea lines of communication of Brazilian and allied interest, in accordance with the international commitments assumed;
> – to control maritime areas of interest for the security of the national territory and for safeguarding the resources of Brazilian jurisdictional waters and the continental shelf;
> – to deny the use of maritime areas to the enemy;
> – to dissuade hostile attitudes and stimulate favourable ones;
> – to project power;
> – to contribute to the guarantee of the use of the main channels and secondary waterways attainable therefrom, in the Amazon and the Paraguay River basins;
> – to cooperate with other Single Forces;
> – to contribute to the maintenance of law and order and institutions;
> – to provide for the safety of maritime, river and lake navigation; and
> – to collaborate in the socio-economic and technical-scientific development of the country; in order to contribute to the achievement of the National Objectives. (Brasil. Ministério da Marinha, 1979b, p. 11; 1979a, pp. XV–XVI; 1980a, pp. 5–6; 1981a, p. XV; 1983b, p. 2; 1983a, p. XV)

As previously suggested, the duality of maritime power verssus naval power is present here, and will always be part of the unfolding developments. This arguably goes beyond Booth's and Grove's triangle elements, as will be further discussed. Additionally, the strategy

[169] Before addressing the mission statements, it is important to note that a 'mission' in the BN is doctrinally considered to be formed by 'task(s)', expressed by verbs, fulfilled to achieve defined 'purpose(s)', which is initiated by the expression 'in order to contribute to' (Estado-Maior da Armada, 2018).
[170] The latter two included some modification of the text, but exposed the same content.

framework gains increasing clarity, with ‘ends’ relating to the 'National Objectives', ‘ways’ relating to the 10 tasks (or sub-tasks)[171], and ‘means’ relating to the maritime and naval powers.

Some elements of the mission are worth commenting on. The first one relates to the so-called ‘basic tasks’ within the list: sea control, sea denial, power projection and deterrence. Appearing, not coincidently, at the top of the list – the first five ones – they denote priority over the remainder, as mentioned in the 1980 Naval Policy (Brasil. Ministério da Marinha, 1980a, p.5), evidently being directly linked to the military role of the triangle (Grove, 1990, p.233). Another element in the first task refers to the context of the Cold War, where Brazil envisages its own interests along with its allies’ interests. Obviously, it refers to the Western bloc as opposed to the Communist one.

The second task reveals Brazil as a growing offshore oil explorer in its jurisdictional waters and continental shelf throughout the 1960s, 1970s, and 1980s. The Navy perceives this to be a challenging task because of Brazil’s changing position, considering its territorial seas, whose extension has risen from 12 to 200 nautical miles since 1970, as seen in section 3.2.1 (the topic of Naval Doctrines).

In the deterrence aspect of the third task linked to sea denial capability, it is interesting to note that the 1979–1983 period had been the best in terms of submarine capacity since Brazil created its own submarine force in 1914. There were between eight and 10 submarines available, although all of them were of either American (Guppy II and III) or British (Oberon) origin (Guimarães, 1987), which, as seen, would only start to change in the 1990s. In terms of amphibious capacity, in turn, for the power projection capability, in the fifth task, there were, around 1985, three transport ships and two amphibious ships, as seen on the chart about the Fleet (see Figure 3.5). While the ‘deterrence’ aspect of its fourth task naturally ensues from the military apparatus, the ‘stimulus’ aspect certainly paves the way for possible cooperation options, as would become somewhat of a norm for the BN and even defence as a whole, as examined in section 3.1.3.

After the first five tasks relating to the military and possibly diplomatic roles, the mission addresses more secondary, although no less important, tasks. As seen in the previous chapter, the Naval Battle of Riachuelo in a riverine warfare context (1865–1870) revealed the strategic importance of the main river basins, which underpinned the sixth task. The seventh task’s aspect of cooperation with other armed forces is traditional, but is expected to increase in the years to come, especially with the advent of the MoD in 1999 and their ensuing joint employment.

In the eighth task, the importance of ‘law and order and institution assurance’ is notable. It is located in the Constitution, along with the impetus to defend the Homeland, but with the latter clearly being more important. The historically more intense participation of the Army in the country’s political life, naturally associated with having larger amounts of troops available for inland activities, contributed to the maintenance of this legal device in the constitutional text, as discussed in section 3.1.1 (Castro & D’Araujo, 2001, pp. 18–19).

[171] Considering that in the BN doctrine ‘mission’ equals ‘tasks(s)’ plus ‘purpose(s)’, the tasks in this mission statement would be led by the verbs ‘to guide’ and ‘to prepare and employ’, and the purpose would be led by the expression ‘in order to contribute’. Thus, those 10 tasks would be more like ‘sub-tasks’, resulting from the main two.

The safety of navigation in the ninth place exposes the variety of activities inherent to the Navy's portfolio. Over the timeframe, these activities have tended to grow along with trade in the use of the sea and inland waterways. Similarly, collaboration in socio-economic and technical-scientific development in the last task is also significant in the non-military scope of the Navy's activities. The very fact that this task is included in the Navy's mission reveals a lot about its interaction with other segments of society, as the documents discussed earlier have already demonstrated (see section 3.1 and section 3.2.1).

As noted, this first period, which was defined by the early 1980s and had influence up to the mid-1990s, set the stage for the timeframe under study. However, the trends already perceived, such as the unlikely superpower confrontation and the end of the Cold War around the beginning of the 1990s likely brought some changes deemed necessary to the next stated missions. At the same time, two dualities were maintained: maritime power and naval power and outward and inward postures, as will be seen.

1997 to 2003

The Navy's mission in the 1997 DBM and 1998 PBM is defined as: 'to guide the preparation and employment of maritime power and prepare and employ the naval power in order to contribute to the achievement of the National Objectives' (Brasil. Ministério da Marinha, 1997a, p. V; 1998a, p. 1.1). The duality between maritime power and naval power is visible here again. The verbs 'to guide' and 'to prepare and employ' – linked to their respective complements – each represents a 'task' of the mission. The only 'purpose' to be achieved by those task is 'to contribute to the achievement of the National Objectives' (1997a, p. V; 1998a, p. 1.1).

In the 1998 PBM, there is a further explanation of that mission. The subsidiary assignments, initiated with the CL no. 69 of 1991, as explained in section 3.1.1, are listed and linked to the maritime power part of the mission (Brasil. Ministério da Marinha, 1998a, p.1.1). The four 'classic basic tasks', in turn, is directly linked to the naval power part. In comparison to the versions of the 1979-1997 period, the detailed 'sub-tasks' are kept out of the stated mission. While in this version those sub-tasks are not exposed, some of them are further listed as aims of the basic tasks and some are new:

> – to dissuade hostile attitudes and encourage favourable ones;
>
> – to provide military support and exercise appropriate persuasion as required by political action at an international level;
> – to keep open sea lines of communication of Brazilian interest;
> – to operate in coordination with other Armed Forces as required; and
> – to contribute to ensuring the use of inland waters, in particular the main channel and secondary waterways that can be reached from them in the Amazon basin and the Paraguay River. (Brasil. Ministério da Marinha, 1998a, p. 1.2)

As noted, the aims referring to the need to 'dissuade hostile attitudes', 'coordination with other Armed Forces', and 'inland waters' remain almost the same. The second aim – not present in the 1980s versions – reflects, on the one hand, the more contemporary posture towards the use of force in the current post-Cold War order. On the other hand, it implicitly

highlights the military action in coordination with and subordination to the political sphere as a consequence of the domestic political change in the country in 1985. The third aim also differs from its 1980s counterparts. While the 1980s versions associated the maintenance of the maritime communications with the 'Brazilian and allied interest', the versions of this period kept it only in the Brazilian sphere, as would be expected in this post-Cold War order.

2003 to 2008

The next version of the Navy's mission is stated in the naval policy called DirBaM, of 2003 – already examined – and repeated in the DBM of 2004, as follows: 'Prepare and employ the Naval Power to contribute to the Defence of the Homeland' (Brasil. Marinha do Brasil, 2003, p. 1.2; 2004, p. V). As seen, it is even shorter than that of the previous period.

As for the context, the CL no. 69/1991 is substituted by the CL no. 97/1999 with the creation of the MoD, and the PMN 1994 and PDN 1996 remain the same. As in the previous naval policy, the 2003 DirBaM offers a brief explanation of the parts of the mission statement and of the statement itself. It justifies the short length, presenting only the naval power aspect, stating that only that aspect is explicitly cited in the Constitution (Brasil. Marinha do Brasil, 2003, p.1.2). The maritime power aspect, as it explains, appears only in subsequent legal devices (2003, p. 1.2). Nevertheless, it provides the same brief explanations provided by the 1998 naval policy, referring to subsidiary assignments (2003, p. 1.1).

Those five aims mentioned in 1998 are all repeated in the 2003 naval policy. However, two points not previously cited – although explicitly cited in the 1979-1997 period – are added as separate from the mission, although they are associated with it. One relates to the well-known 'technical-scientific development', citing the socio-economic aspect indirectly as a 'fundamental parameter' (Brasil. Marinha do Brasil, 2003, sec.1.2). The other refers to the 'law and order assurance'. Both appear as follows:

> – Preservation and expansion of the technological heritage, through continuous nationalization of means, research, development and strengthening of the national industry.
> – [...] the activities involving the Guarantee of Law and Order will take place strictly observing the constitutional precepts. (Brasil. Ministério da Marinha, 2003, p. 1.2)

2008 to 2017

The mission for the fourth period starts with the PEM of 2008 (Brasil. Marinha do Brasil, 2014, p.VII),[172] is repeated in the DBM of 2014, and continues until 2017, when the last mission version is established. The 2008 and 2014 mission is as follows:

> To prepare and employ Naval Power *in order to contribute to* [author's emphasis] the defence of the Homeland. Be ready to act in the guarantee of constitutional powers and, by the initiative of any of them, of law and order; act in actions under the aegis of international organisations and in support of the foreign policy of the country; and fulfil the subsidiary assignments provided for by Law, with emphasis on those related to the

[172] The PEM of 2008, published in March (Estado-Maior da Armada, 2018), was not made available as it was still classified, but this version of the mission statement is available in the LBDN of 2012 and also the DBM of 2014, where the PEM 2008 is mentioned as including the mission.

> Maritime Authority, *in order to contribute to* [author's emphasis] the safeguarding of national interests. (Brasil. Marinha do Brasil, 2014, p.VII)

Considering the mentioned formula – 'mission equals task(s) plus purpose(s)' – this mission would in fact portray, strictly speaking, two missions. The first one has one object – 'Naval Power' – and one purpose – 'to contribute to defence of the Homeland'. The second has three objects – 'constitutional powers and law and order', 'international organisations' along with 'foreign policy', and 'subsidiary assignments' – and one purpose – 'to contribute to the safeguarding of national interests' (Brasil. Marinha do Brasil, 2014, p.VII). While the first part ('first mission') repeats the 2003 version, the ensuing parts ('second mission') – new compared to the 2003 edition – with the three objects, seem to embed those activities with somewhat equivalent importance.

The part regarding 'law and order' seems to reflect the first CL no. 117/2004, which alters the original one, no. 97/1999, and expands the explanation about procedures regarding this subject matter (Brasil. Ministério da Defesa, 2004, pp.4–6). It also reflects its constitutional status as part of the 'fundamental mission' for the military. The same legal device is mentioned in the PDN 2005 (Brasil. Ministério da Defesa, 2005, p.6) , which reinforces the previous inference, as both documents at the defence level condition the Navy documents and decisions.

With regards to the 'actions under the aegis of international organisations' and 'in support of foreign policy' (Brasil. Marinha do Brasil, 2014, p.VII), the likely driver really is the PDN 2005, where the emphasis of the topic started to grow in defence documents, with 'peacekeeping operations' starting to be cited in the PDN 1996.

Regarding the 'Maritime Authority' part, this is the first mission to use the term, since the Commander of the Navy assumed this position with CL no. 97/1999. This seemed a belated but natural result of the increasing regulation of maritime spaces. The UNCLOS has been in force since November 1994, and ensuing domestic laws have addressed the subject through, for example, the Waterway Traffic Safety Law no. 9.537 of 1997 (*Lei de Segurança do Tráfego Aquaviário*, LESTA) (Brasil. Presidência da República, 1998b).

2017 onwards

The change in the last period appears to just be a consolidation of the approaches from the previous mission, in a more accurate and concise way. The mission is stated as follows in the naval doctrine of 2017:

> To prepare and employ the Naval Power *in order to contribute to* the defence of the Homeland; to the guarantee of constitutional powers and, by the initiative of any of them, of law and order; to the fulfilment of the subsidiary assignments provided by Law; and to the support of the foreign policy. (Brasil. Marinha do Brasil, 2017, p.VIII)

The naval doctrine itself refers to its agreement with the END, where the mission was exposed in 2016, and with the PEM in 2017 (Brasil. Marinha do Brasil, 2017, p.VIII), and more recently included in the new naval policy of 2019. As seen, naval power remains the central object, with its most crucial role being 'defence of the Homeland'. It follows the other Navy's activities related to the other three objects, as seen in the previous period: 'constitutional powers and law and order', present in the Constitution; 'subsidiary assignments', associated

with the Commander of the Navy in his role as Maritime Authority, as mentioned; and 'foreign policy', with an expected international engagement in its support.

In conclusion, we can see ebbs and flows in the format of the mission statements over the periods, but both dualities (maritime-naval powers; outward-inward postures), as mentioned, are usually present. In that sense, a somewhat stable and gradual consolidation of its content can be perceived, regardless of the evolving context (or because of it), towards a more concise and accurate statement. This stability, as seen, is also shown in the Navy's constant pursuit, for its mission, of the alignment and link to other documents in the naval (PBM, DBM, PEM), defence (PND, END, LBDN), and political (Constitution, CL, PMN) spheres.

Finally, regarding the current section – Naval Force – the Mission part discussed here, along with the Force Structure and Land-based Organisations parts, have sought to contribute to an understanding of the Brazilian naval strategic thinking at its most pragmatic level. It was possible to see how a variety of naval means – Fleet, Naval District and DGN forces – spread all over the country and operating at sea and in the river basins, along with land-based organisations, in Brazil and abroad, oriented by the Navy's mission and also seeking diplomatic, constabulary and survey effects, among others, have tried to accomplish a wide array of activities under those dualities. Now, under Hattendorf's (2013) framework, the next section will arguably complement the Naval Force and Naval Documents sections with a focus more on the thought level, in an attempt to offer a better understanding of Brazil's maritime strategy.

3.2.3 Naval Publications – or Thought level

As mentioned at the beginning of this 'Formal Expressions' section – using Hattendorf's (2013) approaches of history, thought and practice – this 'Naval Publications' section addresses the thought aspect. While it is clear that the section on naval documents, in which both thought and practice aspects are present, referred to the 'official thought', this section addresses what we could call the 'unofficial thought'. In this sense, what is sought here is the composition of other elements related to thought that can contribute to the characterisation of Brazilian naval strategic thinking over the timeframe. By combining these elements with other elements from history, thought and practice approaches, which compose the first perspective, as indicated, as well as with the elements associated to the various lenses or concepts that constitute the functions of navies approach and the other four perspectives, in the Brazilian case, this thesis will arguably be in a better position to delineate the contours of what could be defined as the Brazilian maritime strategy. In order to do so, some sources of thought that might expose those elements will be addressed. While multiple legitimate sources can be collected, either from inside or outside the Navy, they need to be representative to explain Brazil's naval strategic thinking. Moreover, it is likely that any analysis will depend not only on the aspects of the unofficial or official thoughts per se – as well as in practice and history – but also on comparisons among them.

The sources to be addressed here will be two well-known admirals in the BN and segments of Brazilian society, given their efforts to produce ideas portraying Brazilian naval strategic matters. These authors are Admiral Mário César Flores (1931–2019) and Vice-

Admiral Armando Amorim Ferreira Vidigal (1928–2009). Others could have been chosen, but these two arguably better illustrate the period in which important transitional events, considered in this thesis, occurred, namely the end of the Cold War, the advent of UNCLOS, the political change in Brazil, and the creation of the MoD. Other sources will include articles that span the timeframe of this thesis in the traditional maritime journal, called *Revista Marítima Brasileira* (Brazilian Maritime Journal - RMB), which has been published since 1851.

Admiral Mário César Flores (1931–2019)

Admiral Flores[173] has published various articles in newspapers and journals edited by the Navy or universities on topics related to military and naval strategy and international relations (Dantas, n.d.).[174] Some publications deserve to be noted, like his 2017 article that published a 1971 study by the then-Commander (*Capitão de Fragata*, as referred to in Portuguese) Flores about the formulation of a maritime policy, which stems from Decree-Law no. 200 of 1967 on 'guidelines to the administrative reform' (Flores, 2017). The study aimed to analyse the factors conditioning the formulation of a maritime policy and proposed a systematisation for such formulation (Flores, 2017). It is worth recalling that the first PMN was issued in 1984, as seen in section 3.1.2. Interestingly enough, the study proposed measures that appeared to be followed in the near future, like the creation of the Maritime Policy Council (*Conselho de Política Marítima*) (Flores, 2017, pp. 10–11) and the creation of the National Maritime Commission (*Comissão Marítima Nacional*) in 1983, with a distinct title but similar functions and structures related to the PMN published in 1984 (Flores, 2017, pp. 10–19).

As Captain (October 1971 to November 1978), Flores edited in 1972 a book called *Panorama do Poder Marítimo Brasileiro* ('An Overview of Brazilian Maritime Power'), in which the many elements of Brazilian maritime power are addressed. Flores himself developed the Brazilian approach to the concept of maritime power as well as a strategic assessment of naval power in the 1970s and the position of the BN on that scenario (Flores, 1972a, 1972c, 1972b). There he addresses elements such as probabilities of regional conflicts versus

[173] He entered the Naval Academy in Brazil in 1947. He was promoted in November 1978 to Rear Admiral, in March 1984 to Vice Admiral, and in November 1987 to Admiral (Dantas, n.d.). He was Director of the Naval War College from December 1983 to May 1986, Commander-in-Chief of the Fleet from March 1987 to January 1988, Director General for Material from December 1987 to March 1989 and Chief of Navy Staff from March 1989 to March 1990 (Escola de Guerra Naval - EGN, 2019; Dantas, n.d.). Admiral Flores was assigned Minister of the Navy by President Collor from March 1990 to October 1992. After Collor's impeachment and the ministerial reform imposed by his successor, President Itamar Franco, Admiral Flores was the only top-level then politician to keep a position in government and was assigned Chief of the Secretariat for Strategic Affairs (*Secretaria de Assuntos Estratégicos*, SAE) (1992–1994) (Dantas, n.d.).

[174] Some examples: *Panorama do poder marítimo brasileiro* (Brazilian maritime power overview) (1972); *Desenvolvimento Naval Brasileiro: tópicos para debate* (Brazilian naval development: topics for debate) (not published; initially classified) (1976); *Validade e limitações da não intervenção na América* (Validity and limitations of non-intervention in America) (1985b); *O Preparo da marinha nos anos 90* (Preparedness of the Navy in the 90s) (1991); *Bases para uma política militar* (Bases for a military policy) (1992b); *As Forças Armadas na Constituição* (Armed Forces in the Constitution) (1992a); *Amazônia, realidade e mitos* (Amazon, reality and myths) (1993); *Qual estado?* (Which state?) (1996); *Reflexões estratégicas: repensando a defesa nacional* (Strategic reflections: rethinking national defence) (2002b); *Política de defesa republicana* (Republican defence policy) (2002a); *Reflexões políticas: uma visão da saga brasileira* (Political reflections: a view of the Brazilian saga) (2012).

generalised conflicts. As noted in section 3.1.2, these ideas appear in consolidated topics on the presented policies and strategies.

Still as Captain, Flores along with the then Captain Vidigal – who will be commented upon below – published in 1976 a paper, *Desenvolvimento Naval Brasileiro: tópicos para debate* (freely translated as 'Brazilian Naval Development: topics for debate'), which was initially classified. It was a brief strategic assessment that initially addressed international framework topics like the 'difficult moments' since World War II, '*détente*', 'multipolarity', and the 'new order' (Flores and Vidigal, 1976, pp.5, 13). It also addressed Brazil's position within this framework, together with its 'past, present, future' and questioned the 'validity of solidarity defence' as well as the 'potential and real antagonisms' (Flores & Vidigal, 1976, pp. 31, 35, 41). In its second part, it addressed the topic of 'military strategy and external security' in general and related this to Brazil in particular, presenting a discussion on general concepts and naval warfare particularities (Flores and Vidigal, 1976, pp.70, 80). For some authors, like Martins Filho, this study provided a naval strategic theory translation of President Geisel's political strategy (1974–1979), which 'sought to exploit to the full the country's spaces of autonomy in the bipolar Cold War scenario, especially in relation to the United States' (Martins Filho, 2011, p. 298). He quotes Admirals Flores and Vidigal's words:

> We believe that we should alleviate the basic strategic conceptions that guide the preparation of Brazilian military power from its excessive attachment to American strategy, which subordinates us to US strategic interests in its confrontation with the USSR. (Martins Filho, 2017, p. 47)

In fact, that assertion is underpinned by the assessment of an unlikely generalised war to which that subordination would be linked, as opposed to the more likely regional conflicts, as stated in their previous chapter:

> […] we can state that, from the perspective of the global political-strategic framework, the formulating process of the Brazilian military strategy may admit as unlikely, although not impossible, a generalized war, conventional or nuclear, and an ostensible and classic military aggression from a great power to Brazil. […] Finally, the intended strategic formulation must consider the lower level conflicts inherent in the dynamics of regional geopolitics in which we operate. (Flores & Vidigal, 1976, pp. 29–30)

As seen in the naval documents, section 3.2.1, and in section 2.3, this kind of thought (that searched for autonomy) was increasingly reflected in policies and strategies in the first half of our timeframe. Moreover, a well-known aspect of their conclusions is the 'development and security' binomial – the authors stress that they are intertwined and should evolve together – which has been presented in high-level documents and is already seen here as not only a naval concern, but also a general military one:

> […] to reach this status [of great power] we have to go a long and difficult way. The greatest Brazilian problem remains its development, and for this development to take place, it must be provided with an indispensable minimum of security, the effectiveness of which depends on the development itself. (Flores and Vidigal, 1976, p.46)

It is worth mentioning that Admiral Flores – along with other officers – had influence on important decision-making processes, such as those pertaining to the Brazilian nuclear programme, for instance. He was the Deputy Chief of Strategy in the Navy Staff – with Admiral Espellet as Chief of Navy Staff – by the last quarter of 1978 when the nuclear programme required a crucial decision (Dantas, n.d.). The then-Directorate General for Material, Admiral Maximiano (future Minister from March 1979 to March 1984),[175] had forwarded the report of Lieutenant naval engineer Othon – who had a postgraduate in nuclear energy from the Massachusetts Institute of Technology (MIT) – to the Navy Staff, after questioning him on the possibilities of nuclear propulsion in Brazil (Martins Filho, 2011, p. 282). In his position, Admiral Flores was responsible for giving an assessment of the report presented and, after consultations with the author and individuals from the scientific community, he presented it to the Admiralty at the end of 1978 (Martins Filho, 2011, p. 282). Then it was decided that the nuclear propulsion submarine programme, then named Projeto Chalana (the Chalana Project), would be initiated (Martins Filho, 2011, p. 282).

When Flores was assigned Minister by President Collor in March 1990, he made efforts to keep the nuclear project alive despite the lack of funding and the very restrained Navy budget itself (Martins Filho, 2011, p. 288, 310). Apart from budgeting issues, Collor apparently lacked interest, arguably also due to foreign affairs concerns in its relations to more powerful countries' interests (Martins Filho, 2011, p. 288, 310).

From 1992 to 2002 – the first decade after he left the service in the Navy – Admiral Flores produced two of his perhaps most well-known publications, at least in terms of military and naval policies: *Bases para uma Política Militar* (Bases for a Military Policy) (1992b)[176] and *Reflexões Estratégicas: Repensando a Defesa Nacional* (Strategic Reflections: Rethinking National Defence) (2002b).[177] As he explains, the first expresses his 'doubts and opinions, preceded by a brief historical, cultural and social analysis of the foundations of […] [the Brazilian] military system' (Flores, 2002b, p. 8). By then he declared that he had consolidated his idea of the need for a defence policy review (Flores, 2002b, p. 8). The 2002 book deepened and developed the last two chapters of the 1992 book, which addressed topics such as 'reasons and concerns for defence and security', 'military power hypotheses of employment', 'priorities of its preparation' and 'organization and civil-military relations'(Flores, 2002b, p. 8).

In the 2002 book, Admiral Flores from the start highlighted how, until the mid-1970s, he and his generation of Navy officers were marked by the overwhelming influence of the

> maritime traffic anti-submarine protection – the coastal mission that justified the U.S. Navy materiel and doctrinal support, […] complemented by the hypothesis of marines' employment in the context of internal security in a coastal scenario (2002b, p. 7).

[175] The Minister then was Admiral Henning (March 1974 – March 1979); Captain Vidigal (Martins Filho, 2011, p. 280) was his deputy chief of office.

[176] The contents of the 1992 book were as follows: Chapter 1 – Foundations of the problem; Chapter 2 – The Brazilian problem: the past; Chapter 3 – The new foundations; Chapter 4 – The Brazilian problem: the future (Flores, 1992b).

[177] The contents of the 2002 book were as follows: Chapter 1 – Military conservatism and political orientation; Chapter 2 – The political-strategic and technological scenarios; Chapter 3 – Strategic conceptions and military preparation; Chapter 4 – Developments in Brazil; Chapter 5 – A military configuration draft; Chapter 6 – National Defence, political power and Ministry of Defence; Chapter 7 – Synthesis.

As signalled by him and Admiral Vidigal in their 1976 book, their conception has started to change since then, devising a more autonomous stance for Brazil and its Navy (Flores, 2002b, p. 7, 8). After his first analysis in his 2002 work on the political-strategic and technologic scenarios, he raises an idea already addressed long ago in the mid-1970s.

> It is not foreseeable in the […] future that generalized, intense and long wars will occur, with great powers leading blocks in opposite fields, but the world order will not be peaceful. It will be troubled by various types of conflicts that can happen simultaneously, complemented or intertwined. (Flores, 2002b, pp. 44-45)

He alluded to different types of conflicts at the beginning of this century and for the foreseeable future: 'international regional conflicts', 'internal conflicts, or civil wars', 'interventions' of distinct orders and 'actions of a para-policing nature' regarding terrorism, drugs, and other criminal activities (Flores, 2002b, p.45). Based on this and other assumptions, he makes some inferences at the strategic, operational and organisational levels regarding land, maritime and aerial scenarios (2002b, p. 45). As for the maritime scenario, he claims that, at the strategic level, long campaigns with battles for the extensive maritime domain will be implausible, suggesting that fewer navies are suited to the control of vast oceanic extensions, with some exceptions for their nearest oceans (2002b, pp. 48-79). Indeed, Brazil finds itself in this scenario regarding the South Atlantic, as he points out below, with the ensuing responsibilities for its Navy at the operational and organisational levels.

With these conditioning factors affecting the maritime scenario, he highlights at that moment the group of countries of medium power (Japan, Australia, Iran, Pakistan, Israel, Indonesia and others), with which Brazil would parallel, 'with reasonable technological capacity and the basic conditions necessary to implement it' (Flores, 2002b, p. 62). In his view, such countries 'cannot sustain claims beyond defensive strategies against limited threats and, with restrictions, against some active strategic presence in their vicinity for the benefit of the regional order' (Flores, 2002b, p. 62). According to Flores, these countries' contribution to the world order would be secondary in the following way:

> in support to the United States or another major power in its area of influence, if not as sensible military reinforcement, at least as symbolic support for the legitimating international consensus on interventions. (Flores, 2002b, p. 62)

As a natural consequence, Flores draws on the following assumption as one important conditioning factor for his final analysis on military and naval configurations:

> Brazil has global economic interests and is attentive to humanitarian as well as environmental issues around the world. With regard to national defence and national interests, however, and also to the effective use of its Armed Forces in the service of that defence, its objective concerns – preferably operated in partnership with its neighbours or autonomously if necessary – should in principle, at least for now, stick to the geostrategic theatre made up of South America and the South Atlantic, fundamentally its most western waters. […] In short, the Brazilian agenda is global in terms of economy and humanitarian and environmental concerns, but regional in the security agenda. (2002b, p. 64)

Also considering Brazil's limited budgetary situation, Admiral Flores summarises the suggested capabilities:

> It is convenient to Brazil a modest military capability, credible to ensure regional tranquillity, abort and control irregular activities beyond the police capacity, cooperate in the global order, expressively in the regional order, and contribute to the internal order. (2002b, p. 79)

As a final analysis on military and naval configuration, he suggests a 'conceptual view' and an ensuing 'structural outline' (Flores, 2002b, pp. 80-82). With regards to the former, two scenarios are considered to be plausible given the circumstances investigated. Firstly, in the worst-case scenario – 'classic external threats' – 'only part of Brazil's maritime borders would be threatened', given the 'long extension of the Brazilian coastline', its 'limited objectives', and that 'it would lack capacity for something bigger' at the regional level (2002b, p. 80).

Secondly:

> Brazil cannot and for now does not have to be an important naval actor far from the country, where the security of Brazilian interests depends on the United States, other great powers or even significant regional countries, but it must be concerned with its nearest waters and, beyond them, with less but not zero concern and responsibility with the waters that might be included, somewhat inaccurately, in the Western South Atlantic. (2002b, p. 81)

Admiral Flores concludes that, at least for that moment, there were heavy budgetary restraints, which meant that Brazil would need to resort to an approach like *Jeune École* or an anti-access strategy, rather than a more classic ocean-going one, seen, for instance, in maritime traffic protection (2002b, p. 81).

As a result of all the above considerations and others indicated in his book, he suggests a 'modern core' to the Navy, with the main combatants and other important complementary forces (Flores, 2002b, p. 82). This core would be composed of 'conventional submarines', 'combatant surface ships' – for 'sea control' linked to 'maritime borders defence' – complemented by 'mine warfare capability' for 'close defence of sensitive areas' (2002b, p. 82). It would be responsible for providing intervention naval forces and for cooperating in the control of the South Atlantic, particularly its Western side (2002b, p. 82). Moreover, aside from conventional submarines for coastal defence, he considers the utility of nuclear-powered submarines for distant defence (2002b, p. 82) – as considered in some naval strategy statements from the first part of the timeframe, as discussed in section 3.2.1.

One of the complementary forces would be the light and agile amphibious forces, capable of integrating with intervention forces and limited-purpose incursions, like special operations (Flores, 2002b, p. 82). Another complementary force would assemble ships, crafts, helicopters, marines to operate in the Amazon and Paraguay basins for the purposes of territorial defence and law and order enforcement within riverine operations. They would support the Army and the routine police/naval patrol and, in a subsidiary way, support the riverine communities (2002b, p. 82).A third complementary force indicated would be the ships and crafts for constabulary operations in the maritime zones, enforcing domestic and

international law and safeguarding human life at sea (2002b, p. 82). Finally, maritime patrol and attack aircraft are considered in a scenario of maritime borders defence (2002b, p. 83).

As he admits, this outline neither establishes nor dismisses explicitly the aircraft carriers with their aircraft (Flores, 2002b, p. 83). To sum up, he contends that if the focus is regional, the aircraft are not entirely necessary. Alternatively, if the focus is on distant action, understood by him as being beyond Atlantic, he agrees to giving that capability more weight (2002b, p. 83).

Considering the timeframe, although Admiral Flores's influence through his publications has been active only up to approximately the beginning of the 2000s, they represented a special transitional era. They did so by analysing the changes in both the international and Brazilian contexts, encompassing, for instance, the end of the Cold War, the more likely regional than general conflicts, and the growing activity of the BN in maritime affairs, without forgetting the concerns for naval defence, national development and autonomy.

Admiral Armando Amorim Ferreira Vidigal (1928-2009)

Admiral Vidigal[178] is perhaps the most well-known author from the BN. He wrote about naval and maritime strategy and history for more than three decades in Brazil. He has published more than 40 articles in the traditional 'Brazilian Maritime Journal' and was awarded by this Journal an *Hors-Concours* award in 2002 (Almeida, 2018, pp. 7–8). He has also published or edited books or book chapters, including the notorious *A evolução do pensamento estratégico naval brasileiro* (Evolution of the Brazilian naval strategic thinking) (1985); *A evolução do pensamento estratégico naval brasileiro: meados da década de 70 até os dias atuais* (Evolution of the Brazilian naval strategic thinking: from the mid-1970s to the present day) (2002); and *Amazônia Azul: o mar que nos pertence* (Blue Amazon: the sea that belongs to us) (2006).[179] The first two books are seen as 'classics', as Almeida (2018) describes them, as they have helped to define Brazilian naval identity through Brazil's participation as a naval power actor in key moments of Brazilian history since its independence in 1822. With regards to the first, *A evolução*, after a detailed description and analysis of the Navy over the period from 1822 to the mid-1980s, Vidigal presents his 'conclusive synthesis' (1985, p.106). His intention is to expose in Brazil's case the 'persistence of some ideas and actions in the naval field, linked by a certain line of coherence, thus characterizing the existence of a dominant strategic conception' (1985, p. 106). The outcome is the division of the period into three phases of what he called the 'Brazilian naval strategic thinking', as mentioned in section 2.1. Vidigal believed

[178] Vidigal entered the Naval Academy in Brazil in 1946 and was promoted in July 1977 to Rear Admiral, and in November 1982 to Vice Admiral (FGV-CPDOC, 2009). He was Director of the Naval War College from May 1981 to December 1983 and then Commander of the 3rd Naval District until April 1985, when he retired from active service (FGV-CPDOC, 2009; Escola de Guerra Naval - EGN, 2019). He was also member of the Strategic Studies Centre of University of Campinas and of the Brazilian Institute for Strategic Studies (IBAE) (Almeida, 2018, p.12).

[179] Other titles Vidigal published include: *Almirante Nelson: o Homem Que Derrotou Napoleão* (*Admiral Nelson: The Man Who Defeated Napoleon*) (2011, posthumous publication); *Guerra no Mar: Batalhas e Campanhas Navais que Mudaram a História* (*War at Sea: Battles and Campaigns that Changed History*) (Vidigal & Almeida, 2009).

that in doing so, it would 'bring useful clarification to the interpretation of events of our naval past and could shed light on today's leadership to the evaluation of our future' (1985, p. 107).

As explained, the first phase encompasses the period from independence in 1822 until the Brazilian Naval Revolts in 1893 – a few years after the 1889 Proclamation of the Republic (Vidigal, 1985, p. 108).[180] The second phase lasted from 1983 – or 1910, depending on the work referenced – to 1977, which represented the increasing dependence of the BN 'in all aspects' on the United States Navy (Vidigal, 1985, p. 114).[181] The third phase signalled a few initiatives in the late 1970s and early 1980s that forced Vidigal to conclude that a reformulation of the Navy's strategic conception towards more specific national interests was underway, away from the collective hemispheric defence against the Soviet threat. Within those initiatives were the changes in the naval policy of 1977, previously examined, as well as the PEM formulation process, initiated in 1974 (Vidigal, 1985, p. 120).

[180] These revolts were led by many interest groups and naval leaders, including Custódio de Mello and Saldanha da Gama, against General Floriano Peixoto, the *de facto* but allegedly illegal president, according to the Constitution (Vidigal, 1985, p. 108). Vidigal characterises this phase as one of the 'political hegemony of the Navy' and 'maritime awareness' (1985, p. 106). The Navy's main concerns during this period are outlined. First, the Navy must maintain the 'national unity' of what constituted the 'Brazilian archipelago', given isolated provinces linked practically only through the sea (1985, pp. 108–109). Secondly, the Navy needed to prevent the reconstitution of the 'Viceroyalty of the Río de la Plata' centred in Buenos Aires, thus avoiding a powerful neighbour (1985, pp. 108–109). And finally, the aim was to repress 'slave traffic', thus avoiding justification for English pressure and interference (1985, pp. 108–109). In a certain way, the external campaigns – the Cisplatine War (1825–1828), war against Oribe and Rosas or Platine War (1851–1852), and the War of the Triple Alliance (1864–1870) – stimulated the development and maintenance of the naval force (1985, p. 109). This was despite limitations and structural issues, compounded by the accelerated technological transformations over the century, which were difficult to follow on the part of non-industrialised countries (1985, pp. 110–113). The War of the Triple Alliance marked the beginning of a long period of decline for the Navy with loss of political leverage, culminating with the Proclamation of the Republic (1985, pp. 110–113). In his 2002 work, however, Vidigal revised this first phase division and extended this 'era of maritime dimension' until 1910, where there was a new fleet with two new dreadnoughts built in England (Vidigal, 2002, pp. 3–4). He judged this time period to have lasted from the naval revolts of 1893 until 1910, thus fitting better into the first phase than the second phase of American influence (2002, pp. 3–4).

[181] The combination of a weakened navy in Brazil at the turn of the century and the rising power of the United States, especially after the Spanish-American War of 1898, as well as its growing sea power projection, led to a nearly natural rapprochement between the two countries and navies (Vidigal, 1985, p. 114). The first signs were the U.S. Navy officers contracted to teach at the Brazilian Naval War College just after its creation in 1914; the contracted American Naval Mission by Brazil in 1922; and the modernisation of the two Brazilian battleships, *Minas Gerais* and *São Paulo*, in the United States in the 1920s due to the lack of maintenance capacity in Brazil (1985, p. 114). The Second World War reinforced American supremacy and influence, leading Brazil to accept a subsidiary role in the anti-submarine warfare, creating a dependence of means, training and doctrine, with materiel provided via the Lend-Lease Act of 1941 (1985, pp. 115–116). The supply of ships as war surplus would continue under the Military Assistance Program of 1952 (1985, p. 116). The circumstances of the Cold War then maintained the subordinate condition of the BN in the anti-submarine warfare, with the Soviets as the sole external enemy at the time (1985, pp. 116–117). The difficulty of financing the acquisition of new ships with the United States combined with the Brazilian economic growth, especially from 1967 to 1972, led to the option of realigning with European countries that prioritised more commercial than political conditions in selling military platforms (1985, pp. 116–117). The United States, in contrast, avoided selling modern equipment in order not to influence the balance of military power in South America (1985, pp. 116–117). As such, Brazil procured frigates and submarines (classes *Niterói* and *Oberon*, respectively) from the United Kingdom and minesweepers from Germany. During President Geisel's administration (1974–1979), the United States opposed the Brazil-Germany nuclear agreement of 1975, and President Carter's pressure on human rights issues in Brazil resulted in Brazil terminating the Military Assistance Program of 1952 in 1977 (1985, p. 118). For Vidigal, that event marked the transition from the second to the third phase of Brazilian naval strategic thinking (1985, p. 118).

Vidigal also identifies some of the more specific national interests: the need to increase foreign trade, which was almost wholly dependent on shipping; the dependence on maritime routes to distribute petroleum products throughout the Brazilian coastline; localisation of the main oil reserves on the continental shelf; the concentration of the Brazilian industrial park in the Southeastern region as a source of vulnerability; and the need for a greater Brazilian presence in Africa and Antarctica (1985, p. 120). At that moment, in the mid-1980s, Vidigal encouraged a 'return to a maritime awareness' and 'Brazil's and its Navy's search for their own path' (1985, p. 121). As the first book was published in the early 1980s (first edition in 1983), this third phase naturally continued in his 2002 book, where he had the opportunity to make his reassessments, first of the mid-1970s and then of the 1980s and 1990s. Vidigal judged in 2002 that the designation of the post-1977 era as the 'era of autonomy' was correct, despite the Navy's mistakes and successes, adding that this era could be referred to as one of 'autonomy and military awareness'. As he explained:

> Modern and democratic Brazil today has a military power that is conscious of its constitutional assignments, of its conscious subordination to civilian power, and is proud of its role in defending the country and maintaining law and order when determined by the constituted powers. (Vidigal, 2002, p. 4)

In assessing the first of the three mentioned decades, Vidigal draws on the already cited 1976 paper, *Desenvolvimento Naval Brasileiro: tópicos para debate* (Brazilian Naval Development: topics for debate), written along with Admiral Flores when both were captains. He highlights its main aspect of advocating for a new Brazilian strategic attitude 'away from the assumptions of the Cold War' (Vidigal, 2002, p.10). Thus, this approach was more oriented towards Brazil's specific interests, where the strategic formulation should pay more attention to regional conflicts – as opposed to generalised ones – and the dynamics of regional geopolitics (Vidigal, 2002, p. 11). The aspects of 'development and security' and 'nationalisation' of this field of study are also mentioned, despite the enduring difficulties (Vidigal, 2002, pp. 12–13).

Vidigal also focuses on the nuclear programme, stressing how the 'Brazilian Navy […] saw in the nuclear-powered submarine the solution for its strategic problem, a sort of technological breakthrough' (2002, p. 18). Besides being a 'deterrent par excellence', Vidigal notes that this capability is reinforced by the country's managerial and technological advancement in obtaining such a breakthrough (2002, p. 18). Vidigal gives some details of the project, highlighting the division of the main project (Chalana Project) – to provide the Navy with a nuclear-powered submarine – in two: the Ciclone Project, which aimed to produce enriched uranium for the nuclear reactor, and the Remo Project, which aimed to construct the reactor (2002, p. 20). In addition, he stresses the general agreement among the Ministers of the Navy, such as Admirals Sabóia (1985–1990), Flores (1990–1992), Serpa (1992–1995), Mauro Cesar (1995–1999) and Chagasteles (1999–2003) during this period, that these projects had validity (2002, pp. 21, 22, 126–129). He does so despite acknowledging distinct attitudes held towards the programme, like Admiral Serpa, who made significant changes in how the programme was conducted on an administrative level to align with the new rules of the current government, especially because this was no longer a secret project (2002, p. 23).

Although Vidigal recognises the extraordinary value of the nuclear programme, his biggest concern was the nuclear submarine taking too long to be built, which could affect its cost-benefit assessment, especially compared, for instance, to the continuous development of the air independent propulsion (AIP) system. As he explained:

> With the development of modern submarine independent air propulsion systems, it can no longer be said that in thirty or so more years the option for the nuclear submarine would be the right one because, over all these years, it will consume an large percentage of the Navy's budget, which will affect numerous projects and, at the end of their development deadline, may not mean the same as today. (2002, p. 126)

In his evaluation of the 1980s, Vidigal makes a brief assessment of the international and regional framework, addressing the end of the Cold War and the globalisation process as nurturing a growing dispute between wealthy and poor countries – the North-South conflict – and the ensuing importance of the rapprochement between countries in the region (2002, pp. 25–30). An example is the decrease in the tensions between Brazil and Argentina from 1979 onwards, due to the signing of the Tripartite Agreement between Brazil, Argentina and Paraguay regarding the compatibility between Itaipu and Corpus (2002, pp. 27–28). It is also worth noting the example of both countries' navies having initiated the *Fraterno* Operations in 1978, which are now running for the 35th time (Poder Naval, 2017).

Vidigal then addresses some achievements of the ministers of the period, like the decision of Admiral Maximiano (1979–1984) regarding the Navy leading the process of Brazil's presence in the Antarctic continent from 1982 onwards (2002, pp. 32–36), as well as important procurement processes, showing its successes, failures and technological and financial restrictions (2002, pp. 41–57). Indeed, Vidigal also analyses how budgetary constraints have deeply affected the Navy's constant efforts towards nationalisation, addressing the 'strategy of means', as previously discussed. At end of the 1980s, Brazil had already demonstrated its capacity to construct frigates, submarines and corvettes, as seen in the 'naval force' section (2002, pp. 58–59). Vidigal even advocates that, due to a lack of threats, the Navy could relinquish more its modern arms systems in favour of nationalised items constructed using less-developed technologies (2002, pp. 58–59). Moreover, he suggests that external procurements should prioritise less complex auxiliary ships as opposed to more complex combatant ships, whose nationalising process can take longer (2002, pp. 58–59).

When writing on the 1990s, Vidigal exposes that, as context for his analyses, aside from the conflicts of this decade, asymmetric globalisation is again a subject of his concern, owing to the instability and ensuing security impacts like conflicts and wars it generates (2002, pp. 66–78). Moreover, the perceived pressure from the United States in terms of the Armed Forces of some countries – like in Latin America – being prioritised for internal security issues is also seen as a source of concern (2002, pp. 76–77).

Also in the 1990s, he stresses the importance, as also mentioned by Admiral Flores, of the conventional and nuclear-powered submarines to provide 'maritime border defence', as well as of the surface combatants as contributors to the maintenance of order at sea (2002, p. 80).

Vidigal makes a special mention of the PEM, with the 1989 edition reviewed in 1992 (2002, p. 83). The conclusion of the document – as addressed in the 'naval documents' section

(3.2.1) – is for a 'defensive strategy', since national objectives are conservative, not considering great shifts in the status quo, then pointing to deterrence as the main task of the military powers (2002, p. 84). The mentioned concepts of 'advanced interdiction' – or 'distant defence' – and 'approximate defence' are outlined (2002, p. 84). The 'presence action' – military power as a political tool – as well as 'naval power employment in the riverine environment' are also mentioned as increasingly influencing naval strategy (2002, p. 84).

Another point highlighted by Vidigal is that the first PDN in 1996 starts to fill the gap in the defence level, orientating the preparation and employment of the forces (2002, pp. 86–93). Similarly, he stresses that the creation of the MoD in 1999 was necessary, since he acknowledges a tendency for each armed force to prioritise its own strategic conceptualisation against that of the others (2002, pp. 94–95). Additionally, he disagrees with critiques that point to the absence of interest among the then-elites regarding defence matters, indicating that there is a growing number of military strategy classes in the country's universities (2002, pp. 94–95).[182]

Along with the gap being filled by the new PDN, Vidigal reminds his readers of the other important gap to be filled by the MoD in the form of two documents: the Defence Military Policy (*Política Militar de Defesa* - PMD) and Defence Military Strategy (*Estratégia Militar de Defesa* - EMD) (2002, pp. 94–97).[183] He asserts that, along with the PDN and other important documents, they would influence the PEM (2002, pp. 94–97).

Vidigal also addresses the topic of fixed-wing naval aviation, citing the actions of Admiral Mauro César as Minister (1995–1999) and the presidential decree of 1998, and mentioning other attempts before that (2002, p. 100). He notes the tentative plan of Admiral Serpa – Admiral Mauro César's predecessor (1992–1995) – to acquire fixed-wing aircrafts from EMBRAER, a Brazilian company, to prepare the pilots to operate them in the carrier *Minas Gerais* (2002, p. 100). This arguably indicates that the matter is more of an institutional necessity than a personal decision.

Vidigal concludes his assessment of the 1990s with considerations on warship acquisitions, which partially refer to the figures of the fleet charts in section 3.2.2 from 1985 to 2018, and which can be related to the strategy of means. The difficulty he identified, due in great part to the economic hardship experienced by the country in this decade, is that the amount of foreign procurement – indeed, of used ships – exceeded domestic shipbuilding (2002, p. 107). As he rightly indicates, this would stress the Navy's logistics system – due to the variation of ship origins and types – leading to a reduction in operational efficacy. In fact, when the fleet chart is examined, the 1990s starts a decreasing tendency in all main classes of ships, except amphibious ones.

In addressing the beginning of the new millennium, Vidigal comments on the aftermath of the 9/11 terrorist attacks, but understands that this would not significantly affect the development and preparation of the Brazilian armed forces. In his view, there was more of a security problem than a military problem in Brazil (2002, p. 125). In terms of international

[182] Admiral Mauro Cesar's experience converges to Admiral Vidigal's. Asked about the interaction of the BN with sectors of Brazilian society related to Defence – politics, diplomacy, academy, media, and industry – Admiral Mauro Cesar clearly states that where he saw the greatest evolution in terms of defence thinking was at the academy (personal communication, March 26, 2019).

[183] They would be situated just below the PDN, focusing on the military aspects of defence.

relations, Vidigal judged that, together with the existing and coming defence and naval documents, integration projects with the navies of South America and Atlantic coast of Africa should be maintained and deepened, which converges with the cooperative stance of the BN expressed in many of its most recent policies.

Similarly to Admiral Flores, Admiral Vidigal's concerns address Navy matters and naval strategy in Brazil's case, but go beyond the Navy itself, considering international relations, strategy of means, defence documents and alike, throughout the four decades since the mid-1970s. In that sense, also like Flores, he is a privileged witness of an era of transformation in Brazil and in the regional and international arena. A noticeable difference from Admiral Flores is that he is not so concerned with maritime matters, which does not mean that he has not addressed this topic, which grew stronger in the phase in the current century, after which both Admirals were retired. Thus, comparing Flores and Vidigal's prolific works to the previous official naval documents, it is clear that there is a convergence between both. In the next section, the points regarding multiple issues linked to the Navy, in terms of publications, will be added, in trying to complement the scope of these authors' work.

Brazilian Maritime Journal

The purpose of this thesis, as indicated, is to identify elements related to maritime strategy, in general and specific terms, through a number of lenses, in order to answer the research question. To complement the main ideas presented by Admirals Flores and Vidigal, it is relevant, in terms of naval publications, to address the articles published in the Brazilian Maritime Journal (*Revista Marítima Brasileira* - RMB).[184] Considering the varied lenses addressed related to maritime strategy, condensed in the functions of navies approach and in the five perspectives, it is necessary to select parameters in order to assess the titles of articles in the RMB, ranging from 1985 to 2018 (Figure 3.8). Four groups of parameters will be considered: functions of navies (Brazil's case); maritime strategy; maritime security; and types of strategy.

Although the basic parameters come from the ‘functions of navies’ approach, two other roles will be added in the Brazilian case following the analysis in the ‘naval force’ section (3.2.2). Besides the military, diplomatic, and constabulary roles, the ‘survey role’ (linked to the previously named ‘survey force’) – which, as seen, includes tasks from providing navigational aids maintenance to scientific research – and the ‘assistance role’ (linked to the previously named ‘assistance force’ – hospital ships, etc.) will be added.

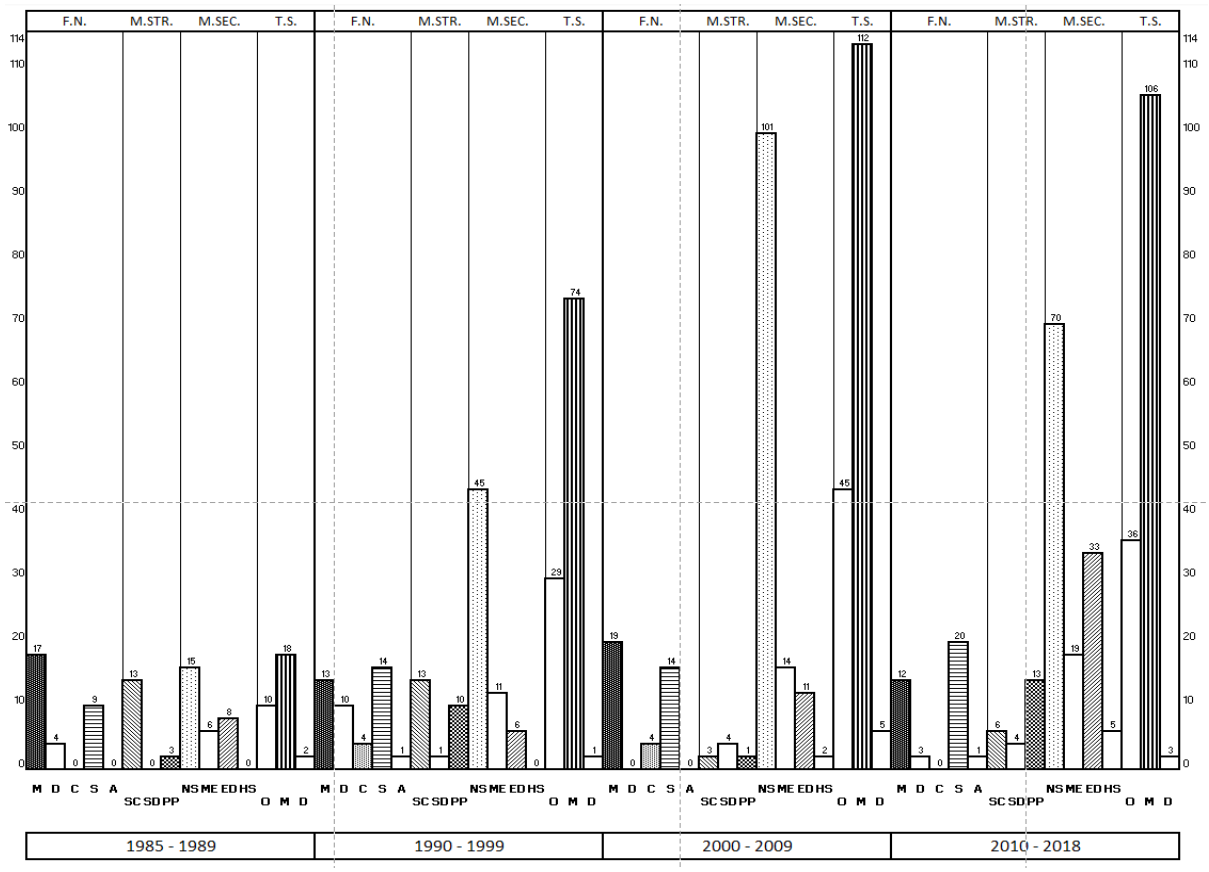
Other parameters come from the ‘maritime strategy’ approach, which, as observed in the third perspective (section 1.5.2), could be of a narrow sense (*stricto sensu*) or a broad sense (*lato sensu*). The former, as cited by Grove (1990, p. 235), would encompass the traditional concepts of sea control, sea denial, and power projection, while the latter, as described by Hattendorf (2013, pp. 8-9), would encompass the three roles originally listed as the functions

[184] Regarding its relevance, the Brazilian Maritime Journal describes itself as follows: 'The Brazilian Maritime Journal (RMB) has been an official publication of the Brazilian Navy since 1851, being published quarterly by the Directorate of Historical Heritage and Navy Documentation [– DPHDM]. The opinions expressed in articles are the sole responsibility of the authors, not reflecting the official thinking of the Navy' (Revista Marítima Brasileira, 2018a, p. 4).

of navies. However, for the purpose of this analysis, the broad sense would practically coincide with the functions of the Navy's parameters, and therefore only the narrow sense will be considered.

The increasingly discussed concept of 'maritime security' is taken as another approach, treated in the fifth perspective. Bueger and Edmunds's (2017) dimensions will be taken as parameters: national security, the marine environment, economic development, and human security.

The types of strategy examined in section 1.5 will also be considered. While the above approaches might be assessed as being 'navy outputs', the 'types of strategy' approach, with the parameters of operational strategy, strategy of means and declaratory strategy, which form the fourth perspective, can arguably be assessed as a 'navy internal' perspective, providing some explanatory complements to the overarching Brazilian naval strategic thinking construct.



PARAMETERS:

F.N. – Functions of Navies (Brazil's case)	M – Military; D – Diplomatic; C – Constabular; S – Survey; A – Assistance
M.STR. – Maritime Strategy	SC – Sea control; SD – Sea denial; PP Power Projection
M.SEC. – Maritime Security;	NS – National security; ME – Marine environment; ED – Economic development; HS – Human security
T.S. – Types of Strategy	O – Operational strategy; M – Strategy of means; D – Declaratory strategy

Figure 3.8 – Number of titles (Brazilian Maritime Journal – RMB) per parameter. Created by the author

It is clear that some approaches present some overlaps, notably those between 'maritime strategy' in the narrow sense and 'operational strategy', for instance. At the same time, this

occurs with the maritime security dimension of ‘national security’. It is understood that, over time, this occasional overlap favours rather than opposes a better understanding of the subjects treated under the many titles.

Some caveats or observations regarding the classification of the titles are important:

Inaccuracy 1: Although taking a title at face value can be misleading, each title was assigned to a specific parameter only if a reasonable link was found between its significance and that parameter. If the title was too vague, it was not assigned to any parameter. For example: the title ‘The dramatic adventure of Battlefield *Brasil*’ (Martins, 1995) does not give enough information to specifically classify it as ‘strategy of means’, ‘operational strategy’, or ‘maritime strategy – stricto sensu’, for instance.

Inaccuracy 2: It is assumed that one article might present links to many parameters. This author will, to the best of his knowledge, choose the better correspondence between the title and only one parameter.

History: Although the timeframe covers the period from 1985 to 2018, it seems clear that many titles fitting into the parameters will discuss the immediate or distant past. They will be treated equally in terms of importance if they provide a certain degree of connection to the Brazilian case, because even though an article may be focused on the distant past, the parameter associated might still be relevant for the classification and analysis of thought.

Relevant figures by groups

Types of strategy: The most significant outcome from the chart is the number of articles centred on ‘strategy of means’. This focus is modest in the 1980s, but its prominence then becomes evident with 74 articles in the 1990s, 112 in the 2000s, and 106 in the 2010s. It is difficult to offer any definite reason for this, but, coincidentally or not, it aligns itself to one feature ever-present in references, naval and defence documents, naval authors’ thoughts, and similar outputs: the search for any grade of technological independence, development and nationalisation. What may have spurred such attention in the current century might have been the advent of the END 2008, which introduced a set of strategic projects as part of an ambitious procurement programme. END has sparked the first programme at that level since the creation of the MoD – or even since the 1967 programme – underscored by the optimism based on the economic boom of President Lula’s era, with the double mandate from 2003 to 2010. This was when, for instance, the nuclear-powered submarine programme started to take off after years of stagnation. Otherwise, ‘declaratory strategy’ has not been popular in the RMB to date, even with the arrival of the defence documents in that open mode. ‘Operational strategy’, in turn, has been quite prominent, following strategy of means and national security.

Maritime security: One reason for the conspicuousness of ‘national security’ – the second most prominent parameter in the latter three periods, with 45, 101, and 70, respectively – has been the wide scope of its subject, encompassing diverse state actors in history, and covering broad topics like grand strategy and various other investigations into threats and risks to the state. This has made it a quite natural and frequent topic of discussion. The remaining parameters of ‘the marine environment’, ‘economic development’, and even 'human security', have engendered increasing interest over the decades. This is consistent with the steadily

increasing view of the oceans not only as a means for transportation, but as an ever-expanding source of resources.

Maritime strategy: Regarding the specific concepts of 'sea control', 'sea denial', and 'power projection', in the maritime strategy approach in a narrow sense, they have not been regularly or prominently engaged with. The nature of the RMB, as a more generalist publication open to the general public, and the existence of more specific professional journals within the Navy,[185] might explain the low figures related to these concepts.

Functions of navies: The 'military role' in functions of navies has gained a reasonable and regular interest throughout the whole timeframe. Similar to that role, the 'survey role' has been discussed quite frequently over the timeframe. It is meaningful that many articles of this topic have been written on the Antarctic programme, started by the BN in the early 1980s, in the context of the scientific programmes and projects coordinated by the CIRM/SECIRM, addressed in section 3.2.2. Similar to the specific concepts in the maritime strategy approach, the 'diplomatic', 'constabulary', and 'assistance roles', in general, have not been prominent. The sometimes abstract nature of the first along with the subsidiary aspect of the latter two, competing with more traditional topics in the BN's case, might be an explanation for that low level of engagement.

Beyond the parameters themselves, the growth of articles through the decades is noticeable, especially at the turn of the century: 1985-1989, 105 (21 per year); 1990-1999, 232 (23 per year); 2000-2009, 335 (33 per year); 2010-2018, 331 (36 per year). This indicates the growth in interest on maritime matters both in the publication and among its audience.

Regarding this Naval Publication section as part of the Formal Expressions section, along with Naval Documents and Naval Forces sections, it is also notable that, on the one hand, Admirals Flores and Vidigal address important elements for the 'unofficial thought' related to maritime policy, naval strategy; strategy of means, as well as development, security and nationalisation, mainly during their active period from the mid-1970s to the beginning of the 2000s. On the other hand, the RMB, covering the whole timeframe, identifies the trends of those elements related to the functions of navies and perspectives of maritime strategy in the hundreds of articles published. It is interesting to see that the prominence of parameters like strategy of means, national security, operational strategy, military role and survey role does not conflict with the elements addressed by Vidigal and Flores, but rather reinforces or complements them, aligning with many of the elements already addressed in the previous sections.

3.3 Conclusion

Framed by some aspects of the past concerning conflicts and crises, assets to be protected, other interests at stake, and its own challenges to overcome, Brazil, via its Navy, from 1985 onwards, came to address how to develop its strategy, based more particularly on its own perceptions and ensuing questions regarding defence and security. The wide and active participation of the Armed Forces in general, and the Navy in particular, in many aspects of

[185] An example of another relevant journal is *Passadiço* (meaning 'Bridge', in English: the ship station from which it is commanded): For further information, see: http://portaldeperiodicos.marinha.mil.br/index.php/passadico.

the Brazilian state and society is a meaningful sign when one considers the mechanisms of formulating naval policies and strategies. This highlights more clearly how the country and its agents formulated maritime strategy.

The structural perspectives section (3.1) showed how others' expectations of the Navy, as well as the Navy's expectations of itself, have been constructed. Such expectations not only involve defence, external security and maritime affairs, but also some societal needs such as social assistance, domestic security, and support for development and science, and exist regardless of whether the president is military or civilian, or whether the Navy has the status of ministry or is subordinate to a brand new Ministry of Defence.

With the analysis of the constitutional framework entering the timeframe (3.1.1), it was seen that, despite the transition from the military regime in 1985, there was no significant shift for the Navy with the Constitution of 1988. The provision of Brazil's international relations principles and the employments of force statements set a framework for a defensive strategic attitude, while domestically the subsidiary assignments maintained a regular responsibility for the Armed Forces. Moreover, the exceptional employment of law and order could be activated only by the constitutional powers of the Republic.

Among the subsidiary assignments, the responsibility to propose a national maritime policy, established since the 1960s, and put into practice in the 1980s and 1990s, has been guiding one of the Navy's various actions concerning the Maritime Power realm, thus enlarging the scope of naval policies (3.1.2). While these assignments showed a gradual expansion over time, the consolidation of the civilian governments as of the mid-1980s led to the first moves to put into practice the idea of a MoD above the institution of the Armed Forces. The Navy regaining the right to operate fixed-wing aircraft after more than three decades apparently was one of the many pieces of that puzzle, with the associated first national defence declaratory policy being published in 1996. In the building of the road to defence (3.1.3), the complementary laws also played a major role in shaping the wide range of armed forces activities, with the first in 1991 (no. 69) followed by the second in 1999 (no. 97), which was one of the foundation stones of the creation of the MoD in the same year.

Still on that road to defence (3.1.3), the concept of 'Strategic Surroundings' in the 2005 PDN helped define the main spatial scope of action for the Navy's influence on the South American subcontinent and throughout the South Atlantic. It joined the then brand new concept of the 'Blue Amazon', conceived in 2004/2005 (Carvalho, 2005a) – present for the first time in a defence policy – as explained in the previous chapter (2.2), corresponding to the Brazilian jurisdictional waters, and including the approved claims of the continental shelf.

With regards to the final period of the structural perspective, as discussed in section 3.1.3, the consolidation of the defence body was arguably accelerated by the first Defence National Strategy (END) in 2008 and the subsequent complementary law in 2010 (no. 136), both responsible for some breakthroughs. One of the most important aspects of the former, amongst many others, was the priority placed on the enterprise of the nuclear-powered submarine programme, and for the latter, the regular four-year cycle for the publication of the reviewed defence policy, defence strategy, and defence white paper, which definitely increased the institutionalisation of the defence body in the country.

Given this contextual perspective over the whole timeframe, the subsequent section – formal expressions (3.2) – introduced the more direct aspects relevant to Hattendorf's approach

(2013) of ‘Practice’ and ‘Thought’, to form an idea of Brazil’s maritime strategy, or, more specifically, Brazilian naval strategic thinking. Thus, commencing with naval policies in section 3.2.1 was a natural step, analysing them from the 1970s onwards, to frame a bigger picture, given the natural inertia of these processes of policy and strategy formulation, as well as their usual long-lasting effects into and over the whole timeframe.

Perhaps the most relevant aspect of all policies examined, with all their variations, has been that they represented an ecosystem, or a systematisation of documents, providing general guidance to the Navy policy formulation, as seen in the figures of that section. Documents such as the PEM were supposed to be conditioned, since the mid-1970s, by many strategic and military factors via the perspective of Naval Power, and by the National Maritime Policy (PMN) and National Policy for Marine Resources (PNRM) via the perspective of Maritime Power. Additionally, the PEM itself has been shown to have had a direct influence on naval policies and ensuing documents and processes, like the then already born Master Plan (*Plano Diretor*) (section 3.2.1).

In terms of policies, the gradually more consistent official acceptance of subsidiary assignments can also be noted, as their citations become more frequent and without reservation. The slight change in the dissemination of the Brazilian Navy motto more recently in 2015 is an evident sign of this long-evident tendency[186].

As for naval strategy statements, the general orientation towards shaping a force structure in the first part of the timeframe (the only available) envisaged an ‘active defence’ with a dual composition – one aspect defined as ‘close littoral defence’ and the other as ‘distant defence capability’ or ‘advanced interdiction’ (section 3.2.1). The former focused on sea control, prioritising critical areas, and the latter focused on sea denial, justifying the efforts towards strengthening the role of nuclear-powered submarines.

The gradual reinforcement of subsidiary assignments predictably follows the tendency of naval policies, as well as the growing tendency to consider taking part in peacekeeping operations as a form of international engagement. Following the pattern of policies and strategy statements, the examined groups of doctrines showed approximately the same tendencies, deepening the consolidation of subsidiary assignments, for instance, under the purview of the Navy leadership as a Maritime Authority. Moreover, the Navy’s contributions towards national development are also increasingly enhanced, as well as a variety of peacetime activities, like the peacekeeping operations noted and other forms of cooperation.

In the section on naval forces (3.2.2), the ‘Practice’ aspect was finally more thoroughly assessed. It contains the Force Structure, with the varied configurations of naval/maritime forces and navy land-based organisations contributing to the same purposes related to the sea, and the Navy’s missions investigated in a more detailed way. Considering the naval/maritime forces, the groups addressed pointed to ‘Fleet’, ‘patrol’, ‘constabulary’, ‘survey’, ‘assistance’, and ‘marines’ and ‘naval aviation’, while the navy land-based organisations pointed to SECIRM, RPB-IMO, and CISMAR.

The force structure represented by the Fleet force over the timeframe has shown signs of difficulties in keeping up with the number of ships, especially escort ships – destroyers,

[186] From ‘Brazilian Navy, a resource irrigator in the country's economy’ to ‘Brazilian Navy, protecting our riches, taking care of our people’ (Estado-Maior da Armada, 2019).

frigates, corvettes – notably in the second part of the timeframe. Submarines, although having some difficulties, managed to be kept at a reasonable level, given their historical figures. As for amphibious and auxiliary ships as well as carriers, despite the difficulties, a reasonable level has been attained throughout the timeframe. At the same time, it is worth noting the recent change from an aircraft carrier to a helicopter carrier.

As for other forces – specifically, patrol, constabulary, survey, and assistance – because their ships and craft entailed significantly fewer complex systems and consequently lower costs, the tendency of their figures tended to be better. Notwithstanding, this should also be credited – as the set of policies, strategies and doctrines indicated over the timeframe – to the increasingly engagement of the Navy with subsidiary activities, either in the field of Maritime Authority (attributed more to patrol and constabulary forces), or the field of development in society (involving the survey and assistance forces). Certainly, visibility in society and expanding demands play their part in influencing that tendency. Marines and naval aviation accompany these two settings of forces accordingly, both in the Naval Power aspect (more purely military) and the Maritime Authority.

As signalled for navy land-based organisations, while they maintain the fundamental link to the use of the sea (and rivers) either by the employment of traditional means or by seeking the traditional purposes of the triangle, they certainly aggregate to what the function of navies can deliver in the case of Brazil.

With regards to the Navy's mission, apart from all their versions over the timeframe, the last version of 2017, which is still in force (September 2019), apparently consolidated slight evolutions in this period. Thus, it stabilised with the tasks of preparing and employing Naval Power to accomplish four purposes: defence of the Homeland; guarantee of constitutional powers and, only by their initiative, of law and order; fulfilment of the subsidiary assignments; and support of foreign policy.

Finally, the aspects chosen to grasp elements of 'Thought' are addressed in the naval publications section (3.2.3), in order to connect with 'History' and 'Practice', and to offer the contours of what could be considered the Brazilian maritime strategy, or more amply, its naval strategic thinking, over the timeframe. The two main exponents in terms of open publications on Brazilian naval strategic thinking, Admiral Flores and Admiral Vidigal, were considered to provide some authoritative elements of 'Thought'. Here it is possible to realise some aspects of the attitude transition such as from the possibility of generalised war to more likely regional conflicts; from the coalition parameters of the Cold War directed at anti-submarine warfare to a more ample capability configuration; considerations over the nuclear-powered submarine programme; and the search for technological independence.

Regarding the 'Thought' approach (3.2.3), the assessment of the more than 1,003 article titles from the traditional sesquicentennial Brazilian Maritime Journal (*Revista Marítima Brasileira* - RMB), in the period from 1985 to 2018, offered an overview of the concepts of 'functions of navies', 'maritime strategy', 'maritime security', and 'types of strategy'. The highlights pointed to the 'strategy of means' prevalence, likely reflecting the optimism towards the strategic programmes as of the END of 2008, and also to the 'survey role', amongst other functions.

After considering and analysing the fundamental aspects of the first three chapters, the next and final one will consolidate those aspects to expose and explain what can be considered the Brazilian naval strategic thinking in the period of 1985 and 2018.

4 A New Perspective?

This Chapter will, firstly, discuss and relate the main findings of Brazil's case to the literature review associated with maritime strategy, and to the elaborated theoretical framework, which is the fifth objective (4.1), show how these findings relate to the objectives, aim and research question, and point out meaningful implications for the existing understanding of the matter (4.2). Secondly, it will present the conclusion of the thesis (4.3), which will include a summary of its parts, the answer to its research question, its contributions, limitations, and questions for further research.

As seen, section 1.5 comprised the main part of the literature review, thus permitting, in section 1.5.3, the formulation of the theoretical framework which supported the development of the thesis. The first four objectives identified further sought to achieve the aim of the thesis – to understand how Brazilian maritime strategy, perceived in a comprehensive way, has unfolded from the last moments of the Cold War up to the present (2018). The themes of the next section will be directly linked to the topics (functions of navies approach and five perspectives) addressed in the maritime strategy section (1.5), to which the findings throughout the thesis will be related and discussed, before proceeding to the final sections.

4.1 Theory and Brazilian reality

The relevance of this discussion is not only to address the gaps found, but also to suggest eventual refinements and the enrichment of existing concepts, drawing on a case study from a part of the globe not always heard of in terms of strategy, let alone maritime strategy.

4.1.1 Adapting Booth/Grove… again

As seen in the Introduction, in the late 1970s Booth himself proposed, in the context of a nuclear threat, that, as opposed to 'the almost *unthinkable* use of the most destructive weapons', the student of strategy had 'far fewer tools to help him think about the many *thinkable* uses of modern naval power' (2014, p. 10). While Booth was advocating his new threefold approach, other attempts over the years have tried to present adjustments to it, especially considering each navy's individual circumstances. Examples have included the UK's Royal Navy and the Royal Australian Navy, discussed in section 1.5.1.

Based especially on the alignment provided in Chapter 3, from the 'ends' presented in the higher-level documents – sometimes more explicit than others (for instance, assignments related to socio-economic and technical-scientific development, present in the legal framework, section 3.1.2, but also in naval policies, section 3.2.1) – to the 'ways' and 'means' presented in the force structure and missions section (3.2.2), the model below (Figure 4.1) exhibits a more accurate representation of the BN's reality, which goes beyond Booth's and Grove's theorisations.

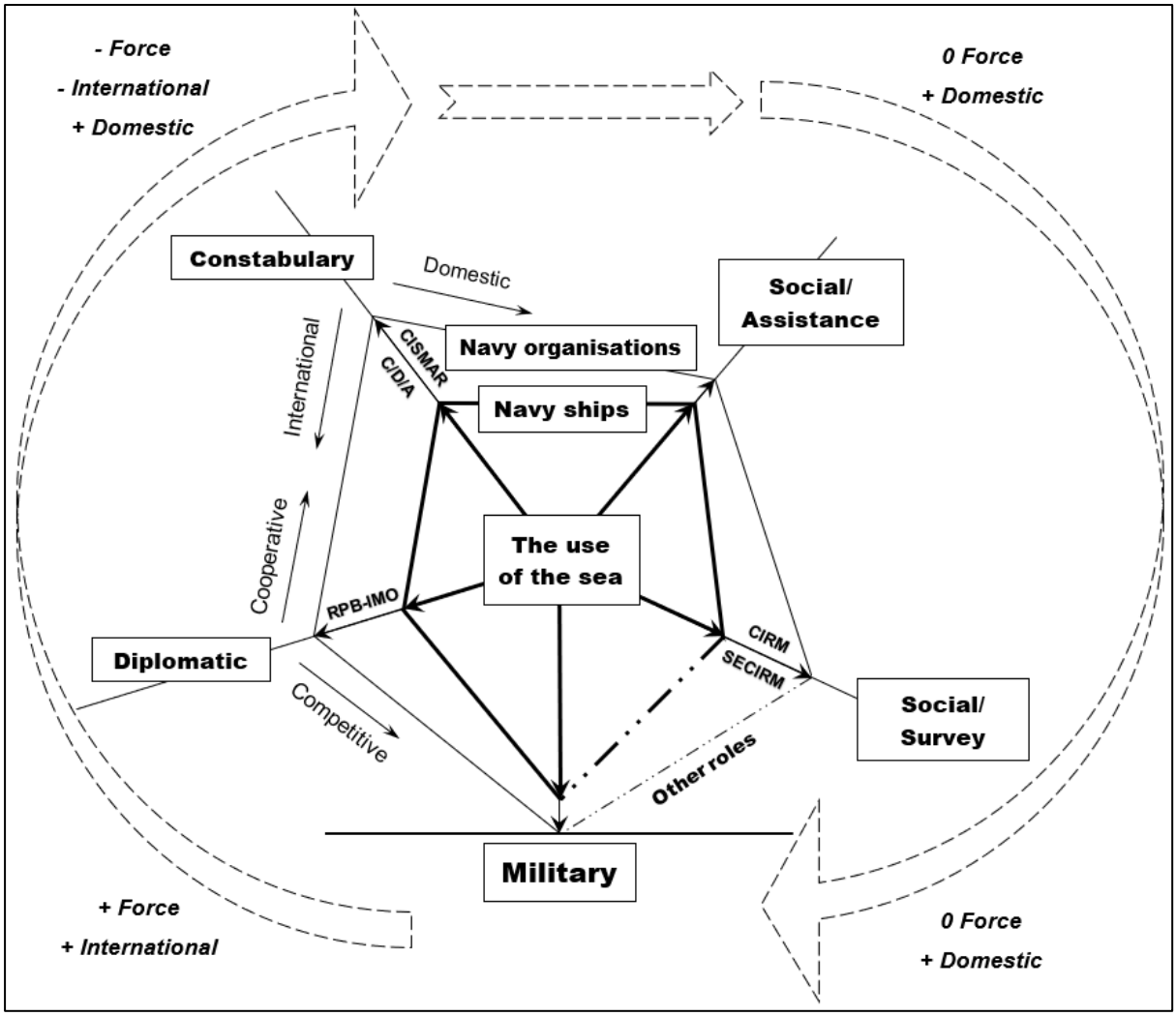


Figure 4.1 – A Polygon model for the Functions of the Brazilian Navy. Created by the author

Observations:

1) '+', '-' or '0 Force': respectively, more, less or no force needed.

2) '+' or '- International': roles with, respectively, more or less an international character.

3) '+ Domestic': roles with more of a domestic character.

As the first innovation in this polygon, the three land-based organisations of the Navy, as discussed in section 3.2.2, deserve to be added to the polygon due to the relevance of their purposes for the BN, being directed at the use of the sea (and rivers). These are RPB-IMO for its diplomatic role, CISMAR for both military and constabulary roles, CDA structure for its constabulary role, and CIRM/SECIRM for its social/survey role. Apart from the RPB-IMO organisation, the BN associates direct maritime operational 'arms' with each of these, as though they were its particular 'force' – survey ships for the CIRM/SECIRM, and patrol/fleet ships and boats/crafts for the CISMAR and CDA, respectively. Besides the centrality of the military role, and of 'the use of the sea' as the purpose for all roles, it is worth stressing the relevance of including these land-based organisations for their complementary character to the naval forces in a medium navy like Brazil's. The more external arrows represent the land

organisations, and they complement the respective inner arrows, which represent ships, although in the case of RPB-IMO, this complementation is more indirect. This inevitably offers land-based organisations a greater relative weight and a higher level of visibility.

As regards RPB-IMO, obviously there are other activities for the diplomatic role in which the BN participates with ships, such as in naval exercises with countries in South America, West Africa and elsewhere – as alluded to in its defence and naval policies (3.1.3 and 3.2.1) – or in defence diplomacy and its ensuing actions via MoD, or not, in fora like the ZPCSA, as shown in 3.1.3 (national defence policies). However, the RPB-IMO, besides being part of the BN institution and all that has been mentioned, presents a position in the polygon, also justified by its firm and singular regulatory connection to the maritime domain, which reinforces its link to 'the use of the sea' requirement.

The newly created CISMAR (as known in 2018, and previously known as COMCONTRAM when created in 1968), in turn makes contributions to both the military and constabulary roles, with CDA being essential to the latter. The more intense multi-agency character of its functions – tackling illicit sea-related activities – lends it a relatively greater level of participation in the latter role, but does not prevent it from contributing to the former, mostly in terms of maritime situational awareness (MSA). In that sense, it is clear that CISMAR contributes both to maritime security (constabulary roles) and maritime strategy (military roles) under the terms considered in this thesis.

In addition to the social/survey role, another innovation refers to the social/assistance role, played mostly by hospital ships (the so-called, by the riverine communities, Ships of Hope), which have been operating regularly since the mid-1980s in the Amazon River basin. Their operations increased in the late 1990s, and expanded to the Paraguay River basin around the late 2000s, as seen in section 3.2.2. These two roles – survey and assistance – could be inserted into the constabulary role, according to Booth's (2014, p. 18) brief assertions that a 'limited modernisation role', plausibly linked to the survey role, could be included in the constabulary objective of 'nation-building', as well as 'giving medical assistance', along with other tasks (2014, p. 268). One reason for them assuming independent roles here involves the intensity, regularity and specificity of the means with which they are conducted in the BN as opposed to the somewhat modest and occasional sense in Booth's approach. In other words, in Brazil they happen in a scale that justifies being portrayed as independent roles.

In the case of the assistance role, it has assumed an expressly unique character, covering a large area of the countryside along the tens of thousands of kilometres of river banks. While the patrol force on these rivers has been kept mostly for coast guard responsibilities such as law enforcement, alone or along with other agents, a 'force' of hospital ships has specifically been tasked for this role. In the case of the survey role, some facts have lent it equal importance. A very relevant one is the long-lasting and substantial structure created and developed where the CIRM (supported by SECIRM) has been coordinating – using the Navy's ships as well – a great number of scientific programmes and projects, along with other ministries and the scientific community, for more than four decades.

As the third innovation, two other parameters were added to the polygon to increase its analytical value: the relative level of force necessary for performing these roles and whether each role is played more internationally or domestically, represented by the curved arrows in the clockwise direction. As for the level of force expected, this starts with the highest level at

the vertex of the military role. As it goes clockwise, that need theoretically decreases, passing the diplomatic role, through its competitive and cooperative modes, and then the constabulary role, through its international and domestic environments, until no force is needed at all in the social/assistance and social/survey roles. Considering the diplomatic role, a more detailed examination reveals the coherence of its competitive side being closer to the military role, where the highest use of force is expected, in Cable's gunboat style. Its collaborative side is farther from the military role, with less use of force expected – where the Brazilian Navy is mostly positioned, as seen both in Chapter 2 and 3. As for the international or domestic arenas, the vertex of the military role also coincides with the extreme end of more international activities – considering its natural application in defence against external threats and in international security – gradually moving to more domestic activities as the arrow follows clockwise. While the diplomatic role is inherently international, the constabulary role, in terms of enforcing the law, can be both domestic and international (at a lower level), as already noted by Grove (1990, p. 234). This is becoming increasingly more common when ships, for instance, act in multinational forces under the aegis of an international organisation like the United Nations, as illustrated by the BN leading the maritime task force in UNIFIL, in Lebanon in the 2010s (sections 1.2, 1.4.2, 1.5.1), or among the Combined Task Forces against piracy off the coast of East Africa (section 1.5.2). Likewise, at the level of international/domestic parameter, the activities become more and more domestic as they go in the clockwise direction from constabulary to the social/assistance and social/survey roles.

As mentioned, one of the main innovations of this graphic compared to the original triangle is the addition of relevant organisations from the Navy land-based sector to the diplomatic, constabulary and social/survey roles. While the reasons for adding the contribution of this sector were discussed above, the greater participation of ships in the military and social/assistance roles was represented by their relatively longer arrows on their respective axis, compared to the relatively smaller contribution from specific land-based organisations. Notwithstanding, many Navy land-based sector obviously contribute to the military role, with its 'fleet force', and to the social/assistance role, with its 'assistance force'. The point here is to highlight the more prominent ones to the associated roles.

The fourth innovation is the fundamental shift of representing the functions from sides in the triangle to vertices in the polygon. I argue that the latter is more accurate. The reason is that the size variation of one arrow from the centre of the polygon in one axis, representing ships, and its continuity with the respective arrow of the navy land-based organisations, does not affect the size of the arrows of the other axes. This is not the case with the functions being represented by the sides in the triangle. In fact, Booth or Grove had not quantitative intention to represent any intensity of the function by the measure of these sides. Their intention was merely qualitative. In reality, the quantitative intention of this polygon is not to offer five precise figures, but rather to provide a notion of intensity between activities. In this sense, it is possible to use the size of the arrows to compare metrics between the different activities. However, as it is an initial conceptual approach stemming from the Brazilian naval reality, the sizes in this first edition of the polygon are subject to interpretation. Inevitable refinements to this subjectivity are expected and welcome, after further data collection and adequate analysis. For instance, it might be possible to add quantitative data, such as costs involved, the number of activities conducted in each role, and so on.

Additionally, the size flexibility of this polygon, not only in the arrows' lengths, but also in the number of vertices, as noted in the figure by the dotted lines between the social/survey and the military roles, is the fifth innovation. In this way, the polygon is subject to an enlargement (or contraction), with any additional type of role deemed relevant. This addition would depend on the new role relevance and complexity in terms of its real practice and intensity towards the purpose of the use of the sea. However, it would firstly depend on whether the role is primarily conducted by ships. If a specific Navy land-based organisation then makes a significant contribution to this role, it might be seen to complement a specific function in the polygon, adding its arrow to the respective ship's arrow. This flexibility allows for the applicability of this model to navies with multi-purpose conditions, whatever their degree, similar to the BN.

Furthermore, Booth's words below on the importance of such conceptual tools, despite his main focus on foreign policy, are even more suitable 40 years later, especially with the marine reality increasingly pressing for the building and strengthening of concepts, such as maritime security, which can cope with its complexity, as discussed earlier (section 1.5.2).

> Today, writers about this subject face a world in which war, navies and international relations appear very much complex, in their human, political, economic and technological dimensions. It is only when our minds are clearer on some of the issues discussed in this book that we can begin to face the growing complexity of the subject with more confidence and so begin to develop more rigorous and perceptive approaches to the study of navies and foreign policy. Armed with these [tools] we will have the basis for better understanding, comparison and forecasting. (Booth, 2014, p. 10)

Finally, it is worth stressing the direct connection between this polygon and Hattendorf's (2013) approaches of *'practice'* and, to some degree, *'thought'*, since scrutinising the main roles played by navies permits an understanding of how they do what they do, and consequently how they conceptualise what they do. In that sense, it becomes a relevant contribution to explain not only a general Brazilian naval strategic thinking, but also a perceived Brazilian maritime strategy in its broader sense, considering that Hattendorf (2013, p. 9) has placed the 'policing (or constabulary)' and 'diplomatic and international' functions 'within a maritime strategy' (section 1.5.2).

Much questioning may arise from the innovations brought by this model. One could argue that it loses the simplicity provided by the triangle, which is usually the quality that models – or any explanatory tools – seek to deliver for the benefit of their generalisation to as many cases as possible. In truth, we could offer the counterargument that, with these innovations, we are expanding the explanatory power of the model and not precluding this power in its simplest version: a triangle.

With the advent of decolonisation, the variety of types of navies was already large enough by the time of Booth's work in the late 1970s, but, naturally, with the demise of the Cold War, a new incentive was in place for functions other than warfighting to compete for resources. In Brazil's case, it is curious how the significance of the relevant examples raised – CIRM/SECIRM (1974/1979), RPB-IMO (2000) and CISMAR (2018) – spreads over the timeframe, which follows the tendency reinforced with the end of the Cold War, contributing to the changing character of naval agency. I argue that this tendency for a widening of navy configurations and complexity demands analytical models more consistent and complete,

therefore acquiring more explanatory power in order to increase their potential for generalisation. The flexibility of the polygon with its components – visible parameters, vertices, and straight and curved arrows – allows for its expandable character, thus contributing to this goal.

4.1.2 Hattendorf's approach

Regarding the first perspective of maritime strategy, Hattendorf's (2013) tripartite approach – history, practice and thought – has been employed in this thesis to answer the question of 'what is maritime strategy?', and to achieve the research aim. Although this approach has limitations, it has provided a framework for the thesis outline, with each part of the approach offering an alignment to different sections. Section 2.1 was mainly oriented towards 'History', sections 3.2.1 and 3.2.2 towards 'practice', and sections 3.2.1 and 3.2.3 towards 'thought'. Section 2.1 explored the key factors influencing Brazil's maritime strategy: the historical engagements between Brazil and its navy, which nourished its identity, from monarchy to earlier republic periods, and also its perceptions of more recent moments, from the Second World War to the Lobster War, in combination with the trends observed in section 1.3.1. This combination enables us to explore the long-lasting interactions between the BN and US Navy in the last century, contextualised by the new parameters and interests established by UNCLOS III in terms of marine resource exploitation. All this, as seen, combined with the permanent geographical factors (section 2.2), considerably conditioned Brazil's ends (sections 2.4 and 3.1), having also affected the BN's strategy of means, within its possibilities (section 2.3), and therefore its 'ways' and 'means' (respectively, sections 3.2.1 and 3.2.2), not necessarily in this order. The domestic factor (section 1.3.2), with the transition from the military to civilian governments at the beginning of the timeframe (characterised in sections 1.3.2 and 3.1.1), along with the end of the Cold War, and the creation of the MoD in 1999, created the appropriate circumstances for, on the one hand, adjusting and consolidating the ends around defence at a higher level, and, on the other, consolidating and increasing the navy's activities under the subsidiary assignments related to societal needs (sections 3.1.2 and 3.1.3).

As for 'practice', the closer we come to means and ways, the more we are aware of what the navy is doing. While these aspects are evidenced throughout the thesis, the central sections for this analysis are sections 3.2.1 and 3.2.2. The guidelines present in naval policies, strategies, and doctrines (3.2.1), as well as missions (3.2.2), before and during the timeframe, stipulate the many ways the BN has elaborated on its operational strategy as a whole. At the same time, the evolving force configuration in the same period has demonstrated the gradual rebalance of the varied types of force. On the one hand, the general stability or decrease of some types of ships – submarines, carrier, amphibious and auxiliary in the former case, and escort ships, in the latter case – demonstrates the limitations of the strategy of means in Brazil's case, with regards to its fleet force (Figure 3.5). On the other, the general increase in influence of the other forces (Figure 3.6) – patrol, constabulary, assistance and survey – demonstrates the gradual consolidation of the BN's commitment to its subsidiary assignments over the timeframe, relative to its defence tasks, as seen in naval policies and doctrines (section 3.2.1). A contributing factor certainly is budget constraints, making the less complex forces more affordable than the fleet force.

In terms of 'thought', the naval documents illustrate the main lines of Brazil's naval thinking from the official perspective over the timeframe (section 3.2.1), while the themes addressed by Admirals Flores and Vidigal (section 3.2.3) cover mainly its first half. They have mostly addressed the narrower aspects of Brazil's maritime strategy, due to their lifetime experiences, extending to the turn of the century. Yet, they are mostly associated with the Cold War context and its first moments of transition.

The RMB's analysis of the article titles partially compensates for the above, with a notorious preference for the themes of 'strategy of means', followed by 'national security' (Figure 3.8). The former reasonably reflects Brazil's economic boom in the late 2000s and its influence on the ambitious defence programme which included, for instance, PROSUB, which pertained to the building of conventional and nuclear-powered submarines, as seen in section 2.3 and section 3.2.2. Regarding the latter, if, on the one hand, it does not deepen knowledge of the more specific topics of sea control, sea denial and power projection, on the other it can be associated with the second perspective – naval, maritime and grand strategies – since national security goes beyond maritime strategy.

As initially stated in this section, while this approach is, in some ways, limited, it has provided important elements associated with Brazil's naval strategic thinking, which are essential for this thesis to achieve its aim and respond to its research question.

4.1.3 Levels of strategy

Regarding the concepts of the second perspective – naval, maritime and grand strategies – Brazil's context and particularities shape the links and borders between them, helping define what maritime strategy can be in Brazil's case. Firstly, addressing the links between maritime and grand strategy, both the constitution of 1988 (section 3.1.1) and maritime policies of 1984 and 1994 (section 3.1.2) provide the basis for this assessment, as they clearly define the Navy's activities, and, in the case of the latter, other ministries' activities as well.

In the case of the constitution, apart from the defence activities, the roles of the armed forces in assuring law and order in extraordinary situations, and in executing a number of subsidiary assignments, are clear examples of their peacetime activities beyond classical military contexts. As an illustration, the BN has the responsibility for promoting the safety of maritime and inland waters, and for cooperating with federal agencies in the prevention of crime in national and international contexts, both in maritime and inland waters. These roles accompany its contribution to the formulation of marine-related national policies. With such a wide spectrum of activities, it is sometimes hard to differentiate the borders between maritime and grand strategies, with the navy in many times executing roles which in other countries would certainly be done by civilian agencies. This is also evident in the case of defence policies and strategies, with, for instance, the armed forces, navy included, taking action to enable national development, clearly seeking to fulfil national goals in peacetime.

Secondly, the links and borders between naval and maritime strategy are equally susceptible to discussions, since, as shown in section 3.1.2, the use of the terms 'naval' and 'maritime' in Brazil is not exactly the same as in more traditional maritime powers. The preference for using the term 'naval' in Brazil, for instance, compared to the British context, shows that in Brazil the expression 'maritime strategy' is not usually associated with the use

of force, as opposed to naval strategy. The former is more associated with maritime policies for peacetime actions.

Additionally, naval policies (section 3.2.1), before and across the whole timeframe, confirm that the list of activities goes beyond simply the naval, including activities such as scientific exploration and social assistance in such a way that, at some point in the 2010s, the BN's motto was shifted to 'Brazilian Navy, protecting our riches, taking care of our people' (Estado-Maior da Armada, 2019).

Despite the somewhat unclear borders between those concepts in Brazil's reality, there appears to have been a gradual consolidation of the alignment between the different levels, as the increase in defence-level documents and complementary laws has demonstrated. These documents and laws are normally driven by earlier naval policies in themes like the subsidiary assignments themselves. The borders between these concepts, depending on the case, are usually not easy to define. Yet, having addressed relevant aspects of each one within Brazil's reality, the thesis has offered a more cohesive grounds to assess Brazil's maritime strategy and associated thinking.

4.1.4 Scope of maritime strategy

Although it is difficult to reach a consensus on the precise limits of a maritime strategy definition, this thesis considered a two-version approach, incorporating a narrow and a broad view, as a simple way of addressing this issue. It was recognised that this approach would not solve the lack of consensus, but would at least establish a clearer two-sided set of parameters for the concept. While the former suits the 'traditional terms' – sea control, sea denial, and power projection – as Grove (1990, p. 233) put it, the latter refers to Hattendorf's (2013, p. 10) more holistic view, including the additional roles played by navies other than the pure military in the maritime strategy concept. As previously noted, Hattendorf explains:

> […] maritime strategy involves much more than a navy. [...] navies are clearly an integral part of the maritime world. [...] their work is linked in two directions. On the one hand, [it] is linked to the full range of activities in national defence [(in Brazil's case, the Naval Power associated with the Commander of the Navy position)]; on the other, it is tied to the entire spectrum of civil activities relating to the sea [(in Brazil's case, the Maritime Power associated with the Maritime Authority position)]. A maritime strategy is the comprehensive direction of all aspects of national power to achieve specific policy goals in a specific situation by exercising some degree of control at sea. (2013, p. 10)

The gradual change from a narrow to a broader maritime strategy in the third perspective can be seen in the history, practice and thought of Brazil's case. Historically speaking, sections 2.1 and 2.2 have shown the changing context from the logic of the Cold War, with Brazil assuming the anti-submarine role amid the Western security community effort in the South Atlantic, to the heightened interests in natural resources with the advent of UNCLOS III, therefore increasing the relevance of constabulary roles (section 2.4).

The predominance of a narrow sense of maritime strategy started to officially share more space with a broad sense at the national/defence level, as it went through the 1990s and, even more so, through the 2000s and 2010s (sections 3.1.2 and 3.1.3). By the same token, Naval documents covering policies, strategies, doctrines and missions, while focussing more on a

narrow maritime strategy at the beginning of the timeframe, equally followed the pattern above over time, with greater acceptance of the Maritime Authority's activities (sections 3.2.1 and 3.2.2). On the one hand, the priorities established in the END 2008 and beyond, for instance, towards submarines (sea denial), surface combatants (sea control), and the expeditionary character (power projection), and also in terms of procurement, continuing the efforts to attain conventional and nuclear-powered submarines, exemplify the permanent attention paid to a narrow maritime strategy. On the other, the widening of the Navy's subsidiary assignments exemplifies the growing emphasis on a broader sense of maritime strategy. A symbolic example of that nascent blending of strategies was the Brazilian Navy's motto adopted around 2015, already cited.

Given the wide array of roles forming components of what can be understood as a Brazil's maritime strategy, as shown in the polygon proposed, the simple combination of the narrow and broad scope added to the other perspectives, thus enriching the explanation of how Brazilian naval strategic thinking has been characterised over the last few decades.

4.1.5 Types of strategy

The utility of the concepts of French origin – declaratory strategy, operational strategy and strategy of means – that compose the fourth perspective, is to offer more lenses for the analysis of the labyrinths of maritime strategy in Brazil's case. This is especially useful, given Brazil's comprehensive approach to maritime strategy, permitting not only war-centric aspects but also aspects, military or not, of strategy for peacetime, which converges with Brazil's specificities as a nation.

In the case of declaratory strategy – usually associated with ends – unlike the US case, as thoroughly assessed by Haynes (2015) and Swartz and Duggan (2011) (sections 1.5.2 and 1.5.3), it has not been usual to publish declaratory naval documents in Brazil, with the 2019 version of naval policy being the sole exception (not specifically addressed in thesis, as it is beyond the timeframe). On the other hand, the case for navy-related documents at the national and defence levels has been different. The former was represented by the maritime policies published in the 1980s and mid-1990s (section 3.1.2), and the latter by the defence policies and strategies, which began to be published in 1996, just before the creation of the MoD (section 3.1.3).

Regarding operational strategy, Brazil's naval and maritime reality has embedded this concept with a number of possibilities, associating its ways and means with its capacity to face the risks and opportunities related to ends envisaged in Brazil's distinct areas of operation, both at sea and on the river basins. The possibilities, as seen, go from basic military preparedness for conflicts, through the tasks of sea control, sea denial and power projection, to the many maritime or riverine-related activities usually linked to the subsidiary assignments, as clearly demonstrated in the stated BN's missions (section 3.1.3 and section 3.2).

With regards to the two previous approaches related to the BN's outward perspective, the strategy of means offers a complementary inside perspective on Brazil's maritime strategy and its naval thinking. The strategy of means lens, while conditioned by ends, risks, opportunities and ways, usually present in the two previous strategies, is pervasive in many parts of this thesis. It has been initially seen in the relations between the BN and US Navy in

the last century, especially the second half, with the transference of used American ships to Brazil at reasonable prices (section 1.3.1). It has also been affected by Brazil's changing perceptions on its heightened interests and associated risks, as was the case in the marine-disputed resources with maritime powers, as demonstrated by the Lobster War (sections 2.3 and 2.4, and section 3.2.2). This has prompted in Brazil's strategy of means an ever-present principle of associating defence and development with nationalisation and the search for technological independence, as seen in the documents at all levels (sections 3.1.2 and 3.1.3, and section 3.2). The strategy of means' relevance in Brazil's maritime strategy has been so prominent that this topic has been the most discussed in the articles of the Brazilian Maritime Journal since the 1990s, with a great increase in the years 2000 and 2010, mainly due to Brazil's economic boom from the late 2000s to the early 2010s (section 3.2.3).

In conclusion, while the declaratory strategy as a lens in this thesis has fit only the national/defence level, at least these documents reflected a great number of aspects and guidelines already present in most naval policies, thus allowing the dissemination of these aspects of Brazil's maritime strategy at the higher levels to various audiences, both inside and outside Brazil. The lens of operational strategy, in turn, has exposed, as expected, a great variety of activities performed by the BN's means, summarised in the navy's mission and in the polygon proposed, therefore certainly contributing to the enrichment of this concept. Finally, the lens of the strategy of means has shown its greater importance and centrality relatively to the others, given the continuous historical challenge of the BN in making their programmes materialise in the desired force structure.

4.1.6 Maritime security

The maritime security concept, as defined by Bueger and Edmunds (2015, 2017) in their matrix, is useful for providing a complementary explanation of Brazil's naval thinking, due to the varied Brazilian reality associated with the maritime domain. The significance of this concept is premised on the BN's leadership being characterised at the same time as Commander of the Navy and Maritime Authority (section 3.1.3). Thus, this theorisation explains the association between Brazil's maritime security and maritime strategy in the fifth and perhaps most significant perspective.

Brazil's experience of the Lobster War, in combination with the relationship between Brazil and UNCLOS III since the 1980s, and with the changing nature of the international security scenario since the 2000s, involving terrorism, piracy and other threats, only reinforced the BN's tendency towards the many dimensions of maritime security, ultimately reflecting on the adjustment of roles in the polygon proposed (sections 1.3.1 and 1.5.2, and section 2.1). It is therefore not surprising, as already assessed, that there is an association between the dimensions of maritime security – national security, marine environment, economic development and human security – and two geopolitical concepts in Brazil, namely Strategic Surroundings and Blue Amazon, along with Brazil's area of responsibility for search and rescue. While Strategic Surroundings relate to the first three dimensions, and the search and rescue responsibility relates to the last one, the Blue Amazon concept, with its branches – sovereignty, economic, scientific and environmental – relates to all dimensions (section 2.2). The association of the Strategic Surroundings with the economic development dimension, as

noted, is based on Brazil's main focus on cooperation, rather than competition, in terms of naval diplomacy, as the varied traditional bilateral and multilateral exercises between the BN and other navies in this region illustrate, as well as the search for trade, stated in some defence policies and strategies (section 3.1.3 and section 3.2).

More specifically, the Blue Amazon sovereignty branch relates both to defence and maritime security, as its large jurisdictional area evokes, respectively, both sovereignty, with territorial seas, and sovereign rights, regarding resources of the EEZ and the extended continental shelf (section 2.2). On the one hand, defence not only emphasises naval operations against military action from States, but also highlights the deterrence aspect of the naval power in peacetime against military aggression from State or non-conventional and criminal forces. On the other, maritime security highlights actions against threats like piracy, terrorism, and all sorts of trafficking. Both are undertaken at sea through the almost sole effort of a single actor: the Navy. Other agencies' efforts, such as those of the Federal Police, are combined with the Navy constabulary role, expressed in the polygon by the CISMAR and C/D/A actions via its ships and crafts in general (section 3.2).

The inherently crossed links between the economic, scientific and environmental branches of the Blue Amazon and the economic development and marine environment dimensions of maritime security reinforce the validity of the interconnected characteristics of the maritime security agenda, as explained by Bueger and Edmunds (2015, 2017). Firstly, the economic branch, with the Navy highlighting the strategic importance of the sea lanes, oil production in maritime zones, fisheries, and the potential of tourism and sport activities (Marinha do Brasil, 2019c), ties to the 'blue economy', inherent to the respective dimension (section 2.2 and section 3.2.1). Secondly, the scientific branch is expressed by the National Policy for Marine Resources (PNRM), which has underpinned, from 1980 onwards, the three big plans occurring in the Blue Amazon, coordinated by CIRM: the PSRM, the LEPLAC, and the PNGC (Marinha do Brasil, 2019b). This branch – along with the environmental one (Marinha do Brasil, 2019a) – links to the marine environment dimension when it aims at sustainability and ocean health, either by addressing the management of coastal zones[187] (PNGC) or by exploiting living and non-living resources (PSRM and LEPLAC). When some of the researched resources are transformed into any kind of economic benefits, this branch links to the economic development dimension. In this way, the interconnectedness is demonstrated when the results of these many plans, programmes and actions – especially from PSRM and LEPLAC – have decisively increased the awareness of the marine environment, or enabled the exploitation of vivid and non-vivid resources of the Brazilian maritime zones over the years (section 3.2).

On the one hand, the marine environment dimension's association with the environmental and scientific branches is more related to the BN's approach to maritime power – and thus to the Commander of the Navy's leadership in his Maritime Authority role. In this maritime power sense, the focus on regulation provided by international organisations such as the IMO against issues involving vessel safety, the state of ocean health, maritime search and

[187] Coastal zones comprehend two areas: a maritime zone, up to 12 nautical miles, and a terrestrial zone – including all municipalities directly affected by the phenomena occurring in the coastal zone (Brasil. Ministério do Meio Ambiente, 2018).

rescue, and marine pollution refers to the actions of two types of Navy organisations at the same time. At one end, RPB-IMO undertakes the diplomatic role concerning Brazilian interests in shaping the formulation of international rules. At the other, CISMAR and C/D/A, through BN ships and crafts, conduct the constabulary role in enforcing Brazilian legislation based on these international regulations.

On the other hand, the marine environment dimension is also associated with the more maritime security focus of the sovereignty branch, when it concerns commercial shipping as a medium for trafficking and as a potential target – like oil platforms at sea – for criminals, pirates and terrorists. Here again the interconnectedness, now between the marine environment and national security dimensions, is asserted via the environmental and sovereignty branches of the Blue Amazon.

Finally, the Blue Amazon concept is associated with the human security dimension, but to a lesser degree once there is no specific branch for a direct linkage. This association is perceived when the insecurity experienced by individuals, either in local communities or onboard as seafarers, comes from the effects of the disruptions affecting the marine environment, economic development, and even national security dimensions via the environmental, economic and sovereignty branches.

Regarding the analysed non-traditional cases involving the CIRM/SECIRM (1974/1979), RPB-IMO (2000), and CISMAR (2018), they again demonstrate the deep integration of the BN with the maritime security agenda. The CIRM/SECIRM, involved in the coordination of programmes and projects directed at sea-related scientific research, is related to the *marine environment* and *economic development* dimensions. The RPB-IMO, obviously acting along with the IMO, is related to the *marine environment* dimension. Finally, the CISMAR, although potentially connected to any of the four dimensions, is more often linked to the *marine environment* and *economic development* dimensions, due to its links to law enforcement means in Naval Districts via ComOpNav (section 3.2.2).

In terms of strategy of means and the resulting force structure, the Fleet force is evidently linked to the *national security* dimension, with the required support of naval aviation and the marines. It is also occasionally involved in law enforcement activities connected to the *marine environment* and *economic development*. The Patrol force – potentially involved with *national security* – and the Constabulary force (*Capitanias*, *Delegacias* and *Agências* – C/D/A) are connected to the *marine environment* and *economic development* regarding every aspect of law enforcement. The Survey force is also connected to *marine environment* and *economic development* to the extent of its support for navigation and scientific research. The Assistance force is directly linked to the *human security* dimension.

In conclusion, it is clear how the many dimensions of maritime security are embedded in the many aspects of the BN. This goes from the interests perceived to be at risk to the opportunities for cooperation, the ends established in the documents of national/defence and naval levels, the operational strategies indicated in naval policies, and the approaches of the strategy of means and force structure. In this sense, it is easy for such a wide concept to play a comprehensive role in a multipurpose navy such as the BN.

4.2 Answer and implications

The very approach to maritime strategy taken in this thesis, with its five perspectives and the starting point of the functions of navies, shows how multifaceted the concept can be. In this sense, the thesis has many implications. While authors such as Till, Hattendorf and many others have already considered the broadness of the concept, they have not applied their analysis to the Brazilian context. The current thesis addressed this lacuna by examining Brazilian maritime strategy during a particular historical period (1985-2018). The fact that Brazil has not been heard of in terms of maritime strategy is enough reason to further address the details of its case and to examine how it interacts with the strategies of various other countries, especially within its Strategic Surroundings, thus enriching the concepts used in this thesis by consolidating or adjusting them. This work should be attended to in future scholarship.

If the maritime strategy concept has traditionally been viewed as having a transformative nature over the centuries, from the perspective of Mahan, Corbett, Castex, Gorshkov and many others, this perspective can also be perceived in Brazil's case, with its own specificities addressed in this thesis. These specificities were analysed through the five objectives established, which provided the elements to achieve the aim, and therefore answer the research question.

The first objective, addressed in Chapter 2, permitted the understanding of how historical factors, combined with geographic and geopolitical factors, helped to forge the association between the BN and the nation, its ends and the overall risk-opportunity perceptions over time, resulting in the BN's movements towards its strategy of means. The second objective, in turn, addressed in section 3.1, allowed the observation, on the one hand, that many of the BN's pre-existing guidelines influenced aspects of national maritime policies, defence policies and strategies, and, on the other, how these same documents have enlarged the scope of the BN's activities, with, for instance, GLO activities and the growing subsidiary assignments.

As for the third objective, addressed in section 3.2, the main elements of naval documents and naval force helped to form the alignment of ends, ways and means among themselves, and with the national/defence documents seen in section 3.1. Despite some gaps, a clear interaction between both levels can be observed, at the same time exposing the main lines of Brazil's maritime strategy and nourishing initial elements of the relationship between its maritime and grand strategy in consolidation. The gradual change in naval documents and force structure from a narrow to a broad scope of maritime strategy over the timeframe is also evident. The main lines of naval publications have endorsed this tendency. As seen, given the increasing complexity of ships for the fleet force as opposed to the other forces, this shift was more a matter of budget and technological capabilities than a specific choice.

Additionally, the interviews with the former navy leaders in the fourth objective have validated throughout the thesis some points about the BN's general perceptions, which is reflected for instance in the Blue Amazon and Strategic Surroundings concepts, and the force structure designed and achieved with the aircraft carrier capability, for example. Finally, with regards to the fifth objective, the discussion about the relationship between the findings and

the maritime strategy perspectives partially realised over the thesis and summarised in section 4.1 helped to consolidate an understanding of the evidence of Brazil's case in light of the various concepts considered.

The combination of these objectives, especially the first three, which analysed the main aspects regarding ends, risks, opportunities, ways and means over time, has provided the general scope of Brazil's maritime strategy evolution during the timeframe. Thus, it has answered the thesis's research question and permitted the achievement of its corresponding aim: to understand how Brazilian maritime strategy has unfolded from the last moments of the Cold War up to the present, 2018.

The main implication of this research for the discipline of War Studies and the existing understanding of maritime strategy, after the comparison between the findings of Brazilian reality and maritime perspectives in section 4.1, is a renewed realisation of the functions of navies in the Brazilian context, whereby the unique composition of the BN, with naval platforms and organisations playing traditional and non-traditional roles, led to the construction of the polygon as a more accurate model for Brazil's case. As noted in section 4.1.1, the new model presents an explanatory power for more contemporary times, and can be used and adapted by any type of navy, be it large or small.

Regarding the other lenses, the implications to the existing understanding of the matter comes from the association of the unique evidence of Brazil's case to each concept, enriching these concepts with one more and very specific case.

4.3 Conclusion

What I did and what I found - Summary

This thesis's development stemmed from the author's concern to understand Brazil's maritime strategy – and more comprehensively consider its naval strategic thinking – in the last decades, grounding the research in international debates surrounding the matter. One important point was to further these debates, considering the author's perspective and Brazil's geopolitical space. As a particular case study, Brazilian naval strategic thinking has not been explored in much of the produced and available material in the world, which is normally of Anglo-Saxon origins, or rather written from the perspectives of maritime powers.

Thus, the research question pointed out the need to characterise Brazilian naval strategic thinking over a timeframe (1985-2018), divided by the significant event of the creation of the Ministry of Defence (MoD) in 1999. Naval strategic thinking was a central concept in this thesis, considering that it offers, as previously explained, a more cautious and holistic approach, which includes maritime strategy, and encompasses all important elements for explaining Brazil's approach towards maritime strategy, both in its narrow and broad sense.

The limits of a maritime strategy might be more clearly recognisable in countries where the navy's engagement – usually maritime powers, like the United States, United Kingdom and others – is normally and almost exclusively of an international nature. In countries like Brazil, the limits are blurrier. In the Brazilian case, the navy not only plays distinct roles – those of Booth/Grove's approach and beyond, as examined – but also has a more symbiotic relationship

with society in the maritime and riverine domains, as demonstrated through its past experience and actions in crises/conflicts and in peace.

With the BN fulfilling multiple roles, the conceptual framework suggested should be varied and encompassing enough to permit such a characterisation. Authors generally recognise that the concepts of maritime strategy and maritime security offer a degree of fluidity regarding their borders, but any other consistent complementation would help the cited characterisation. This was the reason the author first departed from the foundation of the roles of navies, based on Booth and Grove, and then considered the five perspectives to help the analysis of the empirical data, in a complementary way. As maritime strategy represents the most traditional of those concepts – at least since Corbett's era – it was natural to draw on the Hattendorf approach, stressing the importance of considering *history*, *practice* and *thought*, to elaborate on the idea of what a maritime strategy concerns. This triple approach has inspired the outline of this thesis. Chapter 2 located historical and geographical elements, for instance, which, to some extent, nourish perceptual elements of risk and opportunities, and affect decision-making processes, while Chapter 3 addressed practice and thought, which ultimately stem from history.

What this author found was a rich experience in the case of Brazil, offering a very unique perspective, with many branches of employment significant for Brazil's society. The BN engages in activities not only related to defence and international security in its cooperative way, but also to deep-seated societal needs, ranging from basic social assistance for riverine communities and elsewhere, to scientific partnerships with Brazilian civilian agents for the development of relevant sea-related areas.

Addressing the Research Question

How has Brazilian naval strategic thinking been characterised since the mid-1980s until 2018, the end of President Temer's administration?

It is difficult to give a short answer to this question, given all the specificities addressed in this thesis. Whatever the length, the components of this answer should consider the elements of ends, risks, opportunities, ways and means, since they are usually part of any strategy, which, in Brazil's maritime case, is of a broader sense. This means considering the whole spectrum of peace-crisis-conflict and not only risks, but also opportunities.

Thus, the short answer is that Brazilian naval strategic thinking, reflecting its maritime strategy, has been characterised over the timeframe by a rebalancing of ends, with the associated risks and opportunities, from the perspective of a narrow maritime strategy – a prioritised focus on interstate conflicts – to an enlarged scope, increasingly addressing domestic needs. This analysis reflected to some extent on the changing configuration of the BN's force structure – means – and on the kinds of activities -– ways – expressed in the naval policies and doctrines, summarised in its stated mission. It is also important to sum up the main areas of operation, such as the river basins, especially those of the Amazon and Paraná-Paraguay; the Blue Amazon, which encompasses the coastal zones up to the limits of the extended continental shelf; the search and rescue maritime area; and the Strategic Surroundings.

The expanded answer considers the adjustment of the ends, expanding from the remnants of the more state-centric Cold War to the growing concern over non-state actors threatening good order at sea. On the side of risks, the general conflict was assessed as giving increasingly more space for limited conflicts, which could refer to the marine resources and order at sea. The opportunities included scientific partnerships and other forms of national development important to Brazil, and the participation in peacekeeping operations under the aegis of multilateral organisations, normally the United Nations, in addition to other forms of cooperation. Inside the navy, the actors involved (the means), notably the ships in the BN's many forces – Fleet force, patrol force, constabulary force, survey force, and assistance force – and conspicuous navy land-based organisations were employed to execute the activities cited, as shown in the polygon.

Contribution

Besides the implication of the polygon proposed as a relevant contribution, other contributions come from both the author's experience and the chosen methodological approach. Judging by the assessment of the naval documents, there is arguably a need to deepen the formulation of strategies in the BN, in particular a set of specific strategies to enhance the institution's ability to cope with its many branches of employment. The lack of formal naval strategies available in section 3.2.1 might be an indication of this need.

The personal professional experience of the author combined with the endeavour of this research have demonstrated the importance of newer generations in the BN's institution having more contact with this subject matter earlier on in their career, for it is clear that naval strategic thinking is not something taught only in finite courses, but rather experienced over the career path, within operational and tactical responsibilities.

This thesis has made an additional contribution to knowledge, as it has highlighted the scarcity of Brazilian naval thinkers addressing the matter of maritime strategy – the intellectual productivity of Admirals Flores and Vidigal, because of their lifetime, has only reached up to the turn of the century – and also the significance of the lack of narrow maritime strategy approaches in the many titles of the RMB. In this sense, this thesis can be considered a 'big picture' approach, representing a kind of 'umbrella' for subsequent research on maritime strategy in Brazil, including its many intricate subjects, like strategy of means, operational strategy, grand strategy, naval strategy, and so on. In methodological terms, the plurality of concepts used to observe Brazil's evidence proved to be an invaluable tool, permitting the reader to assess the varied evidence from multiple angles, thus allowing a more comprehensive understanding of the research object – Brazilian naval strategic thinking.

Limitations

As maritime strategy with its associated knowledge is a subject matter with likely relevant classified material, an unknown significant part of this material might not have been available, which could have prevented deeper insights into the research object. While the

author's personal experience might have mitigated this issue, there are always limits in terms of accessibility.

Another limitation perceived is the distance between the reality of this part of the globe and the intellectual field of maritime strategy forged from very distinct historical evidence, which to some degree hinders the association between theory and Brazil's practice. However this could have been a blessing in disguise, as these distinctions, in fact, have the potential to enrich the concepts addressed, and, consequently, provide a better understanding of the field.

The broad scope of the research object has also impacted the concision of this thesis, although this author argues that it was necessary to offer a comprehensive account, given the lack of research in Brazil and elsewhere using such an approach, which, arguably, is unprecedented. Follow-up research might focus on specific portions of this thesis.

Questions for further research

Some points of the thesis, as extensive as it has been, might deserve a closer investigation. Considering the perceived lack of strategy consolidation, the bottom-up move tends to predominate in the force design process, which emphasises the importance of deepening not only Brazil's maritime strategy but also its constituent parts, such as its strategy of means. The rising figures of articles with this topic in the RMB reinforce the reason to investigate this subject. Moreover, a more systematic study of the strategy of means related to the navy in Brazil would make its relations with Brazil's maritime strategy and grand strategy clearer.

Another point to be considered for future research would be the interaction between the BN and relevant audiences via the stated naval policies, especially now, with the first declaratory version in 2019. Likely audiences relevant to the ends of naval policies would include politicians (congress), diplomats, academia (e.g. strategic studies and international relations fields), defence establishment (military and civilians), defence industry, and the media. By investigating the potential for these interactions, one could draw on them to improve naval policies and strategies as declaratory documents.

Regarding the polygon proposed, many of its parts could be improved, including attempts to quantify the size of its arrows, endowing it with greater significance as an analytical tool. Another improvement would be to quantitatively associate the available means to each role, since it is common for one type of means to play different roles.

Finally, a question arising from the above would be, given the many types of functions of the BN, as expressed in its mission: How could the Brazilian Navy formulate, in a more systematic way, its contribution to Brazil’s grand strategy, considering that this concept is as open for analysis as maritime strategy and maritime security? This is especially relevant, given the arguably still immature status of defence documents and the relationship between the defence establishment and the armed forces in Brazil.

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