

INTERAGENCY COOPERATION AND THE BRAZILIAN DEFENSE AGREEMENTS (2008-2014) IMPACTS: PROSUB, MTF-UNIFIL AND GRIPEN E/F

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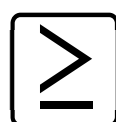
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ABSTRACT

Brazilian defense cooperation agreements substantially increased between 2008 and 2014. Here, we highlight the Submarine Program (PROSUB), one of the Strategic Programs of the Brazilian Navy signed with France in 2008; the United Nations Interim Force in Lebanon (UNIFIL), which Brazil commanded in 2011 as the first UN Maritime Task Force (MTF); and the purchase of Gripen E/F jets with Sweden in 2014 as the largest deal in the history of the Saab company. Beyond the temporal proximity, the common characteristic of these agreements is the fact they were majorly signed with non-traditional Brazilian defense partners. However, the prominent multidimensional aspect among these projects is the role of interagency cooperation not only in their planning and development, but also in their impacts and potentialities.

BACKGROUND

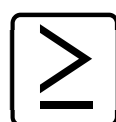
Mapping the international cooperation of the Brazilian Navy (MB) since the creation of the Ministry of Defense (MD) in 1999, we identified 20 agreements - considering bi-, tri-, and multilateral arrangements with France until 2007, the year before the Submarine Program (PROSUB) signature. Likewise, until 2010, the year before MB joined the United Nations Interim Force in Lebanon (UNIFIL), there were 05 agreements signed with Lebanon. In addition, by 2013, before the Gripen purchase, 04 agreements were signed with Sweden. However, by 2018, a decade after the referred period, these numbers have respectively become 47, 10, and 05 (Ambinder, 2018), scaling up in all cases. It is noteworthy, therefore, the Brazilian national and international expansion in defense. However, given the magnitude of PROSUB, MTF-UNIFIL and Gripen E/F, specifically, it is important to understand the context of these projects in order to present how they impacted and may still impact in terms of interagency cooperation.



In 2008, Brazil signed its largest Technology Transfer (TT) agreement with France to build Brazil's first nuclear-powered submarine along with four conventional ones. For its development, the Brazilian Navy created PROSUB, and the TT agreement settled led to the emergence of 21 offsets agreements (of compensation, for the receiving country), aiming at the nationalization of the program's productive chain and the restructuring of the Brazilian Defense Technological and Industrial Base (BITD). These agreements range from the development of operational systems and equipment for conventional and nuclear-powered submarines to the training of human resources to make them viable and sustainable in the future. The technological gain of the program is based on three pillars: (1) the previous experience of the Brazilian industry in the construction and assembly of conventional submarines and, consequently, the partnerships with the industrial sector already established; (2) the consolidation of the agreement with France and the country's willingness to pass on to Brazil the knowledge and technology for the necessary components of the program; and (3) the Brazilian mastery of the nuclear fuel cycle. The latter stands out as the bonding point between the PROSUB and the Navy Nuclear Program (PNM), driven since 1979, both strategic programs. The PNM aims to achieve mastery of the nuclear fuel cycle, the development of an electric power generation plant and the construction of the reactor for the nuclear propulsion submarine. The technology is entirely national, not bypassing cooperation with France, whereas University of São Paulo (USP) has been PNM's main strategic partner since its inception (Brick; Fonseca Jr, 2018; Rosendo; Lima, 2017).

Second, regarding UNIFIL, the United Nations' efforts to cease hostilities between Lebanon and Israel have taken place since the 1970s, culminating in resolutions 425, 426 (1978) and 1701 (2006)^{iv}, which were responsible for structuring this peacekeeping mission. In the latter document, the United Nations Security Council (UNSC) extended the mission's mandate to a Maritime Task Force (MTF-UNIFIL), something unprecedented in the Organization's operations. Between 2011 and 2020, Brazil commanded this maritime component, highlighting the role of its Navy in this framework of international and interagency cooperation. The choice for Brazil was based on its friendly diplomatic relations with both countries (Silva *et al.*, 2017) and the peaceful coexistence between Lebanese and Israeli communities within the country (Meihy, 2018), which is reflected in its population^v.

Lastly, just as MTF-UNIFIL began three years after the signing of PROSUB, the third year following the Mission included another international defense agreement for Brazil, this time aimed at the Brazilian Air Force (FAB): the purchase of 36 Gripen E/F jets from Saab, a Swedish defense and security technology company. This is, so far, the largest deal in Saab's history, just as Gripen is the largest Swedish industrial project, having its first flight taken place in 1988 and being under continuous development ever since (Tryding; Pålsson, 2021: 280). The purchase of these aircraft occurred under the FX-2 Program^{vi} in 2014, but it is important to note that, years earlier, at the time of PROSUB, Sweden was already reasoning about exporting this system to Brazil. After all, there was a close relationship between the two countries, based on the energetic subject matter with Brazilian ethanol exports. In a change of mindset^{vii}, therefore, the relationship shifted toward defense. Former President Lula wanted France for the purchase of fighter jets, but the country was quoted to PROSUB, so the choice for Sweden was both technical and financial (Pedone; Brustolin; Martins, 2018: 278).

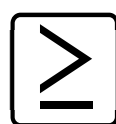


FINDINGS

Previously to the progress of PROSUB, in 1986, and after the structuring of PNM, the Navy's Technological Center in São Paulo (CTMSP) was created with the purpose of conducting the study, development, construction and evaluation of systems, installations, equipment and components of the Navy's interests regarding the nuclear sector. The establishment of its head office at an USP campus was thought considering the ongoing partnership since the 1950's between the two institutions, on the graduation of the force's cadre of naval engineers and due the location of specialized laboratories on campus. Thus, through this partnership, USP has been responsible for carrying out and applying experiments designed by the CTMSP. Thereby, the establishment of the center privileged the participation of naval and nuclear engineers trained at and by the Polytechnic School since the beginning of its operation. The first goal of the project was achieved in 1987, mastering the uranium enrichment process on a laboratory scale, followed by the beginning of tests on a pre-industrial scale at the end of the following decade. By reaching these two stages, the Radioecological Laboratory (LARE) and the Nuclear-Electrical Energy Generation Laboratory (LABGENE) were created, being this one the prototype on land of the submarine's nuclear plant. Currently, Brazil has mastered all stages of the nuclear fuel cycle, with the feasibility and installation of the nuclear power generation plant in progress, with its full completion scheduled to finish in 2025 (Martins Filho, 2011; Patti, 2013).

Results of the MTF-UNIFIL, in turn, are part of the logic that Brazil's command represented a multilateral cooperative arrangement of approximately a decade between Brazilian troops and 46 other nations^{viii}, in which positive externalities for the country were noticed on the approximation with Lebanese civil authorities, military forces of other nations, and in further trade and defense agreements with Middle Eastern countries. Could be mentioned: (1) the creation of a Brazil-Lebanon Friendship Group, formed by governmental and non-governmental agencies^{ix}; (2) the dispatch of a Brazilian humanitarian mission after the explosion in the Port of Beirut, in 2020^x; (3) the integration of the MB into the collective surveillance and monitoring system for Mediterranean maritime traffic Trans-Regional Maritime Network (T-RMN), as an invitation of the Singapore Navy (Antunes, 2018), and (4) the subsequent acquisition of the Oceanographic Research Ship (NPqHo) "Vital de Oliveira" (H39)^{xi}; (5) the Brazilian mediation of the Iran-Turkey nuclear deal as an observer member of the League of Arab States (Amorim, 2016); (6) the intensification of trade agreements with the Middle East through the Arab-Brazilian Chamber of Commerce and the South American-Arab Countries Summit (Amorim, 2015); and (7) the visit, in 2017, of the former Minister of Defense, Raul Jungmann, to Middle Eastern countries, for the diversification of strategic partnerships^{xii}.

Finally, as offsets are compensations commonly agreed in industrial projects, such as planning for job generation, the Brazilian Gripen Program, as a long-term partnership (understood by Saab for more than 30 years), includes more than 60 offsets (Saab, 2020). These compensations, in turn, were planned and/or are enjoyed by cooperation among agencies involved in the Program, as the (Brazilian) Ministry of Foreign Affairs (MRE), Ministry of Defense (MD), FAB, the Brazilian Innovation Agency



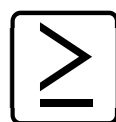
(FINEP), the Government of the State of São Paulo, *Swedish-Brazilian* Research and Innovation Centre (CISB), the National Development Bank (BNDES), USP, the Swedish Governmental Agency for Innovation Systems (VINNOVA), Saab, among others (Pinotti, 2018). Such is the complexity of this interagency relationship that, despite the normative nature of the Gripen agreement, new institutions were created through it, like a working group (High-Level Group) to monitor the program's activities.

CONCLUSIONS

MB's option for use of the previous partnership with USP to establish its technological center responsible for the development of the nuclear reactor precedes PROSUB in itself. The close cooperation that already exists between the institutions was what allowed the partnership with France in the development of conventional submarines also to spill over into nuclear-powered submarines. Additionally, although the Navy's nuclear program has been in existence since the 1970s, it was the establishment of PROSUB that re-signified its progress, given that, during the 1990s and early 2000s, its budget was basically for cost maintenance (Brick; Fonseca Jr, 2018). The partnership between the institutions also enabled an autonomous Research and Development (R&D) approach that prioritized integration with the national scientific community and mapped Brazil's technical-industrial opportunities. These priorities also considered the difficulties calculated for the implementation of the program, especially targeting the training of personnel for its development and maintenance, once concluded.

Regarding MTF-UNIFIL, despite the end of the Brazilian activities in 2020, the participation on the mission contributed significantly to the increase of interagency cooperative arrangements, both nationally and internationally. These arrangements, in turn, continue to be useful for the Brazilian insertion abroad as a global actor, from the use of its soft and hard power, which drives the improvement of its domestic institutions created for this purpose. This can be demonstrated, for example, by the fact that, in 2021, Brazil took the command of the Combined Task Force 151^{xiii}, a multinational task force to combat piracy and protect maritime trade in the Middle East region, based on its experience with MTF-UNIFIL.

Finally, since spillovers are the possible consequent effects of a project to other sectors, with greater integration among them, it is possible to affirm that the Brazilian Gripen Program has a broad spillover potential, being classified as an "extended spillover" (Deiaco; Ek; Román, 2017, p. 23/35). For instance, in the Gripen "Industrial Compensation Agreement", there is a naval version of the fighters jet (Sea Gripen/Gripen M)^{xiv}. In addition, the sum of the Program's planning, execution, monitoring, compensation and spillovers created a model of cooperation between Brazil and Sweden in defense, which should be used by other segments. In this sense, with Sweden already having a previous historical with the Brazilian Army (EB)^{xv} and a more recent one with FAB, we indicate here the opportunity to expand the cooperation to the naval sector.



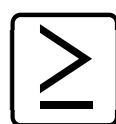
SUGGESTIONS

As PROSUB is one of the most complex and innovated public policies from the Brazilian state and that results from a long independent program (but correlated to the nuclear), it is estimated that its main adversity is the constancy of the originally budget predicted and, consequently, the construction of necessary units and labs. Being a project with high technology risk, which the lack of budget stability leads to the operational dismantle and obsolescence, a possible suggestion is to rebuild the management model, so it can be compatible with the execution of its goal's flow, together with a system of stable budget financing. Other possibility is the program to recruit in the Brazilian Academy, promoting, besides science and genuinely national technology, the insertion in the labour market.

Related to the MTF-UNIFIL, yet the specialized academic literature is fruitful in the scope of peacekeeping missions, the works that aim to evaluate the impact of the maritime components insertion, like this Mission, are scarce. In the same way, there is not still a deep literature about interagency cooperation framework in peacekeeping missions, neither an evaluation of its impact in terms of international projection of the countries. As a recent concluded fact, there is a need of evaluating the Brazilian enrolment impact at FTM-UNIFIL and mapping how this was translated into later agreements inside and outside the defense aspect. In this sense, there is a demand for academic research in these areas, as well as following the own military forces and governmental agencies to allow a correct balance of the situation, aiming to base the decision-making process of enrolment in future operations.

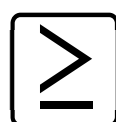
To conclude, considering the suggestion made of the defence cooperation expansion from the Gripen to the naval sector, we indicate, specifically, the continuing purchase of systems of weapons and ammunitions, even in bigger ships, aimed by MB^{vi}. As new opportunities, thought, there is, first, the possibility of acquiring surveillance systems and *e-navigation*, considered the major demand of MB nowadays^{vii}; besides, there is the Swedish interest in transfer technology and training of countermining measures, field in which both countries jointly promote a biannual International Congress since 2017. This type of vessel can also serve for patrolling, but minor ships could be built together^{viii xix}. The fact is that, besides having maritime territories, both Brazil and Sweden are in a moment of attention to its naval industry, either because of the Technological Naval Cluster of Rio de Janeiro, founded in 2019, or the War on Ukraine (2022) and the instability in the Baltic Sea, respectfully. On its turn, the Gripen has the multidimensional functionality of patrolling the Brazilian coast^{xx}.

From the historical between Brazil and the countries cited here (France, Lebanon and Sweden), then, we defend that it should have a larger use of the impacts of these great defense agreements signed in the last years, not only in the original areas of the projects (PROSUB, MTF-UNIFIL and Gripen E/F), but also in other segments, promoting a major Brazilian internationalization through the potentialities of the interagency cooperation.



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^{iv} [https://undocs.org/en/S/RES/426\(1978\)](https://undocs.org/en/S/RES/426(1978)); [https://undocs.org/en/S/RES/1701\(2006\)](https://undocs.org/en/S/RES/1701(2006)).

^v The population of Lebanese and descents in Brazil gets close to 10 million of habitants (around 6% of the Brazilian population), almost the triple of the Lebanon native population, while the Brazilian concentration resident in the country reaches almost 10 thousand habitants (Abdenur, 2016).

^{vi} <https://www.gov.br/defesa/pt-br/centrais-de-conteudo/publicacoes/infograficos/gripen-ng>

^{vii} Based on an interview conceded by Elisa Sohlman (2021) about the Protocol of Intentions between the Brazilian Chamber of Commerce in Sweden (BrazilCham Sweden) and the Brazilian Ministry of Defense (MD).

^{viii} <https://unifil.unmissions.org/unifil-troop-contributing-countries>.

^{ix} <https://www.marinha.mil.br/noticias/fragata-uniao-realiza-doacao-instituicao-de-caridade-no-libano>.

^x <https://g1.globo.com/mundo/noticia/2020/08/13/missao-brasileira-de-ajuda-ao-libano-chega-a-beirute.ghtm>

^{xi} <https://www.marinha.mil.br/dhn/?q=pt-br/gnho/vital-de-oliveira>

^{xii} <https://www.gov.br/defesa/pt-br/centrais-de-conteudo/noticias/ultimas-noticias/em-agenda-oficial-na-jordania-ministro-raul-jungmann-e-recebido-pelo-rei>

^{xiii} <https://www.marinha.mil.br/noticias/marinha-do-brasil-assume-comando-da-combined-task-force-ctf-151>

^{xiv} <https://www.marinha.mil.br/node/1387>. Although there is not any client for a naval version of the Gripen fighters yet (Sweden does not tend to have aircraft carriers), the initial plan considered Brazil and India. MB deactivated its aircraft carrier NAe A-12 São Paulo in 2017, which was necessary to take-off, but the institution remain at the monitoring group of the Gripen.

^{xv} Anti-aircraft weapons 40mm L/60 from the company Bofors (1947 – current); radars and electro-optic fire systems of control (1980); multipurpose recoilless rifle Carl Gustaf and anti-tank weapon AT-4 from Saab (1995); Simulation Device for Tactical Engaged – DSET (2008); Electronic War Systems IDAS-3 to the Helicopters EC-725 (2011) and for the Border Monitoring Integrated System – SISFRON – Saab (2013); RBS 70 (NG) – Saab (2014/2018) – Based on institutional presentations from Bofors and Saab in Brazil.

^{xvi} In the 1970's, it began the acquisition of naval weapons systems from the company Bofors to the Brazilian Navy Directory of System of Weapons (DSAM) through the installation of ammunitions 40mm L/70 in the frigates Class Niterói. Since then, there had been also the purchase of radars and electro-optic fire systems of control and Bofors counted with Brazilian partners to the manufacture – in order, CBV Mechanical Industry, which was developed until become a supplier for Petrobras, and, currently, the Managerial Company of Naval Projects (EMGEPRON) and ARES Aerospatiale and Defense. It occurred, then, a multiplication of the agencies involved in this partnership – Based on an interview conceded by Mikael Branting (2022) about Bofors in Brazil.

^{xvii} Webinar “Cyber Tendencies in the Maritime Environment”, by Alumni PPGEM/EGN (2021).

^{xviii} Based on perspectives given by Kockums and Saab in Brazil (2022).

^{xix} Sweden was one of the participants of the Liberal Frigate (FTM-UNIFIL) modernization, in 2005.

^{xx} 2022 Magna Class of the Admiral of the Fleet Ilques Barbosa for PPGEM/EGN.