Coleção Meira Mattos
revista das ciências militares

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INTELLECTUAL PROPERTY

Cataloging in Publication (CIP)

CONTENTS

The Military Sciences against the Covid-19 pandemic

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We are launching the second issue of the Coleção Meira Mattos of 2020. The first during the current pandemic that poses enormous challenges to humanity, several governments, as well as to the Armed Forces around the world – many of which are involved in measures to fight Covid-19.

The post-pandemic world might be different from the one of today on several aspects. Regarding the Military Sciences, it will be important to encourage reflections and analyses that, once matured, may underpin changes in public policies and foster new strategies and military doctrines, among other actions.

In the global scenario, even in the midst of a health and economic crisis caused by the pandemic, some nations have been performing a series of military movements as a way to test the operational readiness of their competition. Squadrons were put in motion in the Caribbean, Persian Gulf and Sea of Japan. Military aircraft were intercepted and intercepted others in operational capability demonstrations. The Russian threat of a nuclear response to the US resurfaced after decades buried in the debris of the Berlin Wall. We need to reflect upon how the impacts of the pandemic will affect the international relations and the national goals of countries that guided the directions their Armed Forces should follow.

At regional level, we watch border closures and nations turning their attention to the needs of their population. Yet, this occurs alongside one of the world's biggest migration crisis. Thousands of Venezuelans are spread throughout South American countries. In Brazil, *Operação Acolhida*[1] provides shelter for vulnerable people while controlling Covid-19.

Nationally, the Brazilian Armed Forces play a mighty role in response to the pandemic, although a non-combat operation and, by definition, beyond the primary role for which they exist. These actions put the Armed Forces in evidence once again and may cor-

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1   Information: http://www.eb.mil.br/operacao-acolhida

roborate in further decisions such as defense budget votes, which may suffer restrictions, as funds are redirected to other sectors such as health, or increments, as society acknowledges that the best security is having Armed Forces structured to national response capacity. The ability to operate jointly with different agencies and government bodies (comprehensive approach) will improve in the light of experiences. Another major challenge for the coming months and years is to think about the efficiency of the National Mobilization System (provided for by Law No. 11,631/2007[2] and Decree No. 6,592/2008)[3] and the opportunities to adjust it, as well as the legislation governing it.

The military will be challenged to incorporate the lessons learned during 2020, when they were forced to deal with an undeclared and invisible opponent; which coordinated attacks throughout the national territory, indiscriminately affecting civilians and the military, threatening to collapse public health infrastructure, and even jeopardizing public order. Lessons learned from Covid-19 will gradually emerge in new guidelines and adjustments to operations manual and procedures.

Thus, scientific methods together with empirical knowledge, acquired by practical experiences, are key to develop research that critically reflect the challenges, responses and results of the pandemic period, producing expertise to face future events. Among others, the methods and theories that should be incorporated into the Military Sciences are: operations in VUCA environment (Volatility, Uncertainty, Complexity and Ambiguity); design of complex operations-comprehensive approach; planning of scenarios, forecasting methods and modeling; and georeferencing, popularized in maps showing pandemic evolution in states and municipalities. These results should be reported in academic journals, such as Coleção Meira Mattos, to be discussed by several professionals and academics of the area of Defense.

Thereafter, we will present the articles composing this CMM edition. To reflect on unconventional and diffuse threats, we have Colonel Alessandro Visacro's article: *Winning in multi-domains is not enough: thoughts on the new doctrine and the gray zone conflicts.* The text addresses the characteristics of the complex environment in which the analyses and decisions of strategists, politicians and military should be made.

Even before the Covid-19 pandemic, the Armed Forces were already concerned about this kind of threat. The DQBRN 1st Battalion and the doctrines related to the area are constantly evolving. The article *Actions of military veterinarians from other nations in Chemical, Biological, Radiological and Nuclear Defense: a subsidy to modernize the Brazi-lian Army doctrine*, by Renata Simões Barros and José Roberto Pinho A. de Lima, assesses the indoctrination within the veterinary practice in other nations "identifying technical and laboratory skills for these specialists" (BARROS;DE ANDRADE LIMA, 2020 , p. 153) and proposing contributions to the field in Brazil. The Health and Education areas were contemplated in the article *Nursing education in*

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2   Available at: http://www.planalto.gov.br/ccivil_03/_Ato2007-2010/2007/Lei/L11631.htm

3   Available at: http://www.planalto.gov.br/ccivil_03/_Ato2007-2010/2008/Decreto/D6592.htm

the military scope: an integrative review, by Rafael Pires Silva (UFF) and Alessandra Conceição Leite Funchal Camacho (UFRJ), which addresses teaching methods of the profession within the military scope.

Two articles that focus on the Brazilian strategic environment are: *From regional security to political vacuum: a study of the ten years of the South American Defense Council*, by Bernardo Salgado Rodrigues (UFRJ) and Marcos Cardoso dos Santos (ESG); and *Fai-led States: From the origin to United Nations interventions in the post-Cold War*, by Lieu-tenant Colonel Anselmo Rodrigues. In the former, the authors evaluate the importan-ce and obstacles of Brazilian leadership regarding defense and South America. Anselmo Rodrigues' article critically analyzes the theoretical issue of failed states and the United Nations interventions, based on the African reality.

We hope you enjoy the readings and reflect, from the Military Sciences point of view, upon the challenges imposed for the Brazilian Armed Forces in the post-pandemic world.

Finally, we remind you the military and other frontline workers rely on knowle-dge acquired by their training and different scientific methods to analyze situations, make decisions, and execute plannings, whether in the Joint Force Command of Covid-19 Ope-ration (Minister's Guideline No. 6/GM/MD of March 18, 2020),[4] or in their military organizations. Coleção Meira Mattos wants to thank all the military and frontline workers in the fight against Covid-19!

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4   Available at: http://www.planalto.gov.br/CCIVIL_03/Portaria/PRT/Portaria%20n%C2%BA%201232-20-MD.htm

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From regional security to political vacuum: a study of the ten years of the South American Defense Council

De la seguridad regional al vacío político: un estudio de los diez años del Consejo de Defensa Suramericano

Abstract: From the perspective of regional and geopolitical security, the construction of defense mechanisms is essential for the sovereignty of any country in the international system. The Union of South American Nations (UNASUR) and the South American Defense Council (CDS) are innovative political practices that have sought to increase the autonomy and security of the South American countries in international relations. Therefore, the present article seeks to conduct a study on the advances and setbacks of the South American Defense Council in its initial ten years (2008-2018). Based on the concepts of Regional Security Complexes and Security Community, and using a bibliographic and documentary research, it has been tried to demonstrate that the first years of intense activities and projects were mitigated by the political-institutional vacuum, mainly due to the Brazilian crisis. Thus, it is concluded the importance of Brazil's leadership in defense issues in South America, whose negative scenario, in principle, makes it difficult to promote a South American identity and the construction of a Security Community.

Keywords: South American Defense Council. Regional Security. Regional Integration. Security Community. South America.

Resumen: Desde la perspectiva de la seguridad regional y geopolítica, la construcción de mecanismos de defensa es esencial para la soberanía de cualquier país en el sistema internacional. La Unión de las Naciones Suramericanas (UNASUR) y el Consejo de Defensa Suramericano (CDS) consisten en prácticas políticas innovadoras que buscaron posibilitar una mayor autonomía y seguridad a los países suramericanos en las relaciones internacionales. Por tanto, el presente artículo busca realizar un estudio acerca de los avances y retrocesos del Consejo de Defensa suramericano en sus diez años iniciales (2008-2018). Con base en los conceptos de Complejos Regionales de Seguridad y Comunidad de Seguridad, y empleando una investigación bibliográfica y documental, se trata de demostrar que los primeros años de intensas actividades y proyectos fueron aplacados por el vacío político-institucional, sobre todo debido a la crisis brasileña. Así, se concluye la importancia del liderazgo de Brasil en los temas de defensa en América del Sur, cuyo escenario negativo, a principio, dificulta la promoción de una identidad suramericana y la construcción de una Comunidad de Seguridad.

Palabras clave: Consejo de Defensa Suramericano. Seguridad Regional. Integración Regional. Comunidad de Seguridad. América del Sur.

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1   Introduction

From the perspective of regional and geopolitical security, the construction of defense mechanisms is essential for the sovereignty of any country in the international system. The Union of South American Nations (UNASUR) and the South American Defense Council (CDS) are innovative political practices that have sought to increase the autonomy and security of the South American countries in international relations. Specifically, the CDS was the first South American defense experience conducted by South Americans through cooperation, aimed at deterring and building a South American identity.

The purpose of the article is to visualize the advances and setbacks in the construction of the CDS over its ten-year existence (2008-2018). After identifying the evolution of the concept of regional security within the Council, the question is to what extent it could be described as a Security Community inside a South American Regional Security Complex.

To this end, the central hypothesis would be that the initial years of increasing activities and projects were mitigated from the inflection point of the political-institutional vacuum; the Brazilian crisis and, consequently, of UNASUR and the CDS, would prove the importance of Brazil's leadership, regarding defense issues, in its strategic surroundings. In order to corroborate this assertion, we researched articles published in specialized journals, as well as official sources from UNASUR and CDS.

The article is divided into three parts, plus final considerations. In the first section, we will discuss the theory of Regional Security Complexes and the concept of Security Community, which will serve as a theoretical and methodological basis for this work's objectives. In the second, there will be an empirical analysis about the CDS's ten-year activities, its characteristics, objectives and practical policies. In the third and last part, the relevance of Brazil with regard to South American regional defense will be analyzed.

2   Cds's security and defense concepts: regional security complexes and security community

With the end of post-Cold War bipolarity, some scholars have moved away from perspectives that ratify the structure of the international system based on the relative capabilities of states as a factor to explain international security. Among these authors, Barry Buzan and Ole Waever (2003) stand out, stating that the region is the main factor to elucidate the phenomenon of security regionalization; their discussions are now analyzed based on what they call Regional Security Complexes. Thus, it was assumed that certain regions built identities that would favor a cooperative vision in terms of regional security and defense, which would not exist without a common discourse adopted by their members.

The Theory of Regional Security Complexes is the application of the concept of region to the security dynamics of the international system, reinterpreting the world in spaces whose securitization processes are more intense and conform to specific patterns that differentiate them from other Complexes. "As much as a small handful of states have

security concerns across the globe, the overwhelming majority think of their security from their own neighborhood" (HENDLER, 2016, p. 19-20, our translation).

In sum, the Regional Security Complex is formed by a set of states whose main processes of securitization, desecuritization, or both are so interconnected that security problems cannot be separately analyzed or solved (BUZAN; WAEVER, 2003; BELLAMY, 2004; OKADO; QUEIROZ; BREDA, 2016).

> Continuing his analysis, Barry Buzan states that in defining regional security, the main element that should be added to power relations is the pattern of friendly or enmity relations between states. Referring to the friendly ones, he understands that relationships range from genuine friendship to expectations of protection and support, while enmity goes from relationships defined from distrust to fear. [...] Based on this, regional security subsystems can be seen in terms of friendliness and enmity patterns that are substantially confined within a particular geographical area. (RUDZIT, 2005, p. 312-313, our translation)

Thus, from a regional perspective of post-Cold War International Security, whose "regional level tends to be the most relevant *locus* in the dynamics of cooperation and conflict between states and other political players" (HENDLER, 2016, p. 19, our translation), the Regional Security Complexes are regions viewed from a security perspective, whose focus leaves the global aspect, the main vector during the Cold War, to the regional aspect, where security aspects are most noticeable. Thus, the regional level is the space where most national-global interaction occurs, not only between states from a political-military perspective, but also involving a wide range of players and agendas that vary according to the region (BUZAN; WAEVER, 2003, pp. 43-44).

Regional Security Complexes have four levels of analysis, called "security constellation" (BUZAN; WAEVER, 2003, p. 51-52): domestic, regional, interregional, and systemic. The first one is domestically oriented, with the states of the region, particularly in their generated vulnerabilities; the second, state-to-state relations; the third, interaction of the region with neighboring regions; and the fourth, the role of world powers in the region.

Also, according to Buzan and Waever (2003, p. 530), four characteristics are common to all Regional Security Complexes: 1) geographical dimension (borders and frontiers that separate one CRS from another); 2) systemic dimension (anarchic structure, composed of two or more autonomous units); 3) power dimension (corresponding to the distribution of power between units); and 4) discursive dimension (social construction, which defines patterns of friendship or enmity between units).

The South American Regional Security Complex is considered the standard type, according to Buzan and Waever (2003), as well as a moderate integration complex, constituting a middle ground between conflicting and cooperative complexes. "This middle path is currently related to the development of newly created institutions and the recovery of a regional identity" (OKADO; QUEIROZ; BREDA, 2016, p. 43, our translation).

Historically, Buzan and Waver (2003) analyze the formation of this South American Complex in three historical periods. The first one, from decolonization and independence until the Cold War, left deep marks in the region in the delimitation of South American frontiers with geopolitical disputes to this day; the second one, during the Cold War, that has increased US interference degree through penetration (unilateral or consented), that is, alliance with a Complex State to preserve its interests and maintain the balance of power in this complex; and the third one, after the Cold War, in which the regional integration projects are formalized as an increment of cooperation for the development of institutions. Therefore, South America is configured as an institutionalized Regional Security Complex.

Another interesting concept for these article's purposes is Security Community. According to Karl Deutsch (1969), it is defined as political collectivities whose members decide to settle their controversies by means that do not employ violent use of force, but through interaction between agents; i.e. war is no longer a possibility in relations between this community's members. Understanding the conditions for the existence of a security community is of fundamental importance in a dimension in which the emerging institutions in South America are prone to building a regional defense identity.

The theoretical-methodological improvement of the Security Community concept, as well as how to operationalize it, was performed by Adler and Barnett (1998). In the case of the pluralistic security communities of South America proposed by the authors, UNASUR would represent the partially integrated, as it has minimal properties for its members' interaction and expectations of peaceful change. They surpass the war in the political imagination, since it has no system and norms close to a sovereign state, a supranational government, which is characteristic of a closely integrated pluralistic security community.

> It is noteworthy that, according to Adler and Barnett (1998), the existence of such a community must meet five conditions in its development phase, namely: 1) multilateralism; 2) unfortified borders; 3) changes in military planning; 4) a common threat identification; and 5) a community speech and language. (OKADO; QUEIROZ; BREDA, 2016, p. 40, our translation)

Bellamy (2004, p. 12) realizes an enlightening Security Community conceptualization. For the author, Security Communities are groups of states that have developed mutual expectations based on common standards. When these communities are strong, states also share identities, governance structures, and common interests, which in their turn, shape the way the state views the world, the way it builds its interests, and the ethical and legal rules of the world to which is linked.

Thus, the development of Security Communities has a profound effect on identity construction and reproduction, reconfiguring the boundaries between "them" and "us". It is a generative framework that plays a vital role in building identity in the international society and, therefore, shapes state practice. However, building

identity is an ongoing political struggle rather than a fixed process, "Showing that the construction of group identities tends to be predicated on the creation of boundaries between 'self and other' but questioning the commonplace idea that this has to be so"(BELLAMY, 2004, p. 13).

According to Hendler, there is a "middle path," proposed by the English School, between a realistic view of the conflict-forming, Hobbesian state of nature, with security dilemmas based on the military capabilities of states, and the Security Community, in which processes of desecuritization prevail. This is called "security schemes."

> From this perspective, the states remain as protagonists and live with security dilemmas, however the principles and standards of public international law appear to soften the Hobbesian state of security and to promote the construction of an international "society" based on values shared by its member states. (HENDLER, 2016, p. 20, our translation)

Concerning a Security Community in South America, Okado, Queiroz and Breda (2016, p. 31, our translation) affirm that the region is historically characterized by a paradox.

> It is a geographical space marked by the absence of major inter-state clashes, proscription of nuclear weapons and low military spending, where endemic violence, alarming social inequality, and political-institutional instabilities also coexist. In this environment we notice a change in the behavior of South American countries towards their neighbors. [...] This movement basically consists in attenuating the image of the neighbor as an enemy and rising concern with its vulnerability, which is eventually reflected in regional security and defense dynamics. It is the fragility of the neighbor, not the strengthening, that becomes a source of threat, and the response to this situation tends to be collective, not individual.

One of the main points for the formation of a South American Security Community, in addition to the imminent elimination of conflict and the guarantee of peace (substitution of the "conflict hypothesis" by the "cooperation hypothesis" (SANTOS, 2018, p. 153), is the regional yearning for the formation of a South American identity of regional security. The main milestone of this identity, resulting from a long historical process, was the creation of the South American Defense Council (CDS), although primitive, as stated by Vitelli (2017, p. 3): "our argument is that South America is at an early stage of security community construction."

Thus, at the next session we will study the first ten years focused on South American cooperation and integration *vis-à-vis* the South American Defense Council (CDS), which emerges as a catalyst in the search for the establishment of a regional identity in security and defense matters.

3   Analysis of the cds's ten-year activities

First, it is noteworthy that there are important contributions in the literature on CDS's ten years, such as the articles "UNASUR, Brazil and the South American Defense Cooperation: a decade later" (VAZ; FUCCILLE; REZENDE, 2017) and "*Cooperação na área de defesa na Unasul: um balanço do conselho de defesa sul-americano (CDS) e seus limites atuais*" (Cooperation in Defense Area at Unasur: A Review of the South American Defense Council (CDS) and its Current Borders) (BRAGATTI, GONÇALVES, 2018). However, the central hypothesis and objectives that permeate this article are different, as it will be seen throughout the following sections.

When performing the study of CDS's first ten-year activities (2008-2018), a small preamble is essential, since previous movements that led to its creation are important to understand that this process is a flow, with advances and setbacks, prior to the Council's institutional framework. According to Abdul-Hak (2013, p. 140), three presidential statements consolidated the conformation of South America as a peace zone, enabling the further conception of the CDS:

> 1) the Political Declaration of MERCOSUR, Bolivia, and Chile that resulted in the creation of a peace zone in July 1999; 2) the Declaration on the South American Peace Zone, resulting from the 2nd Meeting of Presidents of South America (July 2002) and ratified by a United Nations General Assembly Resolution in November of the same year; and 3) the San Francisco de Quito Declaration on the Establishment and Development of the Andean Peace Zone of July 2004, ratified by a UN General Assembly Resolution in December 2004. (ABDUL-HAK, 2013, p. 140, our translation)

In addition to the political and institutional factors, some diplomatic-military crises have also intensified the need for the creation of a South American Defense Council that would not generate strategic imbalance and fears of intervention and foreign political interference. These crises include subregional conflicts, such as litigation involving Peru and Ecuador, Bolivia and Chile; autochthonous movements spreading a separatist feeling in Bolivia and Paraguay (FUCCILLE, 2018, p. 6-7); The most recent examples are the Angostura episode[1] and the Colombia-US military bases agreements (SOUZA, 2016, p. 129). Furthermore, its creation would be "a reaction to the tacit or explicit impositions of thoughts alien to regional identity – notably the USA influence – in the formulations and practices of defense policies in South America" (SANTOS, 2018, p. 24, our translation).

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1   "The creation of the CDS, however, took place during a major diplomatic-military incident. Also during the negotiations on the UNASUR Treaty, there was an incident involving Colombia, Venezuela and Ecuador. It was an invasion and attack by Colombian troops in Ecuadorian territory against FARC camps in the Angostura region, which resulted in the deaths of twenty-two people, including the second in charge of the guerrilla, Raul Reyes. Venezuela responded by moving troops to the Colombian border" (SANTOS, 2018, p. 123-133).

According to Okado, Queiroz and Breda (2016), "two of the objectives of this council synthesize a set of previous regional initiatives and ratify it as such a landmark: consolidating South America as a peace zone and building a South American identity in matter of defense." Therefore, a common regional identity regarding defense "would reinforce mutual trust and dispel misperceptions through greater engagement among the South American Armed Forces, thereby providing greater predictability and security to the region" (ABDUL-HAK, 2013, p. 146, our translation). Concomitantly, it would signal a

> rupture with pan-Americanism present in the views of hemispheric security advocated by the Organization of American States. The search for a South American identity in terms of security and defense results from the question raised by several countries about the effectiveness of OAS collective security instruments, such as the Inter-American Treaty of Reciprocal Assistance. (SANTOS, 2018, p. 127, our translation)

The Constitutive Treaty of the Union of South American Nations (UNASUR) was signed on May 23, 2008, which then replaced the Community of South American Nations (CASA). UNASUR aims at regional integration in the cultural, social, economic, and political spheres. On December 16, 2008, in Costa do Sauipe, the South American Defense Council (CDS) was inaugurated, "the first defense integration experience in the region" (SANTOS, 2018, p. 132, our translation) which sought "to overcome distrust by incorporating the defense sector as a harmonious pillar to facilitate the process of regional integration" (ARREDONDO, 2017, p. 18, our translation).

The CDS is "as an instance of defense consultation, cooperation and coordination" (ABDUL-HAK, 2013, p. 151, our translation), composed of the Ministers of Defense or equivalent of their 12 member countries – Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, and Venezuela. Decisions are made in it by consensus and respect for the diversity, aspirations, values and traditions of each member state; "they are only declaratory, without legally binding nature" (SANTOS, 2018, p. 140, our translation).

According to former Brazilian Defense Minister Nelson Jobim, "it would not be an operative alliance, like a South NATO, neither a joint army of the South, but an entity that would be within UNASUR's framework to form and identify a South American defense policy" (SANTOS, 2018, p. 132, our translation). For Celso Amorim, another former Defense Minister, the CDS is guided by three concepts, "three C's": Cooperation, Confidence and Coordination (DINIZ, 2015), affirming that "among us, cooperation is the best deterrent" (SOUZA, 2016, p. 128, our translation).

> According to this concept, the CDS would forge a South American identity of defense based on common values and principles (respect for sovereignty, self-determination, territorial integrity, non-intervention, subordination of the military to the democratically constituted power, prevalence of human rights and

> fundamental freedoms, peaceful settlement of disputes, and the equality of states).
> This identity would also be based on the specific characteristics and situations of
> the various South American geographic strands: Platina, Andean, Amazonian,
> Atlantic, Caribbean and Pacific. (ABDUL-HAK, 2013, p. 147, our translation)

Among its principles are respect for the sovereignty and territorial inviolability of states, self-determination and the principle of non-intervention, respect for human rights, the rule of democratic institutions and the strengthening of the rule of law, military subordination to civil authorities, peaceful settlement of disputes, promotion of trust and transparency and reduction of asymmetries (ABDUL-HAK, 2013, p. 152).

The CDS's objectives are to: 1) consolidate South America as a peace zone, the basis for democratic stability and the integral development of its peoples, as a contribution to world peace; 2) build a South American defense identity that takes into account subregional and national characteristics and contributes to the strengthening of Latin American and Caribbean unity; 3) generate consensus to strengthen regional defense cooperation (ARÁNGUIZ, 2013, p. 64).

> Thus, the first point is the generation of transparency, eradication of distrust and
> elimination of suspicions and fears; the next step is to make sure that commitments
> are met by forming a predictable relationship that remains over time. The third
> step is to deepen trust by establishing links and associative processes to further
> recognize interdependence and thereby institutionalize policy coordination to
> the point of creating supranational institutions. (PAGLIARI, 2015, p. 29, our
> translation)

The highest CDS's instance is the Council of Defense Ministers or its equivalent, which meets once a year for deliberations and approval of the Action Plan for the following year. The Council also has an Executive Body, composed of the Deputy Ministers or their equivalents, and which meets every six months to monitor the work's progress. In addition, the CDS presidency is rotating and held, in principle, by the same country that corresponds to the *pro tempore* presidency of UNASUR. Its responsibility is to coordinate the Council activities (ARREDONDO, 2017, p. 19).

The main activities of the CDS are set out in an annual Action Plan (there are eight CDS Action Plans from 2009 to 2017), divided into four thematic axes: 1) defense policies; 2) military cooperation, peacekeeping operations and humanitarian assistance; 3) defense industry and technology; 4) training and qualification.

In addition to the Action Plans, other documents about the CDS's functioning and activities are considered important. Among them:

- the document "Implementing Procedures for Confidence- and Security-Building Measures" (2010), divided into four confidence-building categories: 1) information exchange and transparency; 2) intra and extra-

regional activities; 3) security measures; and 4) guarantees (PAGLIARI, 2015, p. 34);

- the "Advance Report on Security and Defense Concepts and Institutions, Threats, Risk Factors and Challenges of the South American Defense Council" (2012), which initiated the attempt to reach consensus on the concepts of Security and Regional Defense;

- the Cartagena Declaration (2014), in which seven fundamental axes were established: 1) cyber defense; 2) defense of natural resources; 3) integration of the aeronautical industry; 4) construction of a regional communications center; 5) publication of regional spending on defense matters; 6) holding a Human Rights Operational Training Seminar; and 7) opening of the South American Defense School – ESUDE. (JAIMES; MIÑO, 2015, p. 158-159);

- the document "*Institutionalidad de la Defensa en Suramérica*" (2015), launched by the Center for Strategic Defense Studies (CEED), is a confidence- and transparency-building measure as it provides a systematic description and analyzes normative, organic and functional aspects of the defense architectures of the twelve countries in the region.

One of the CDS's central points, which was strongly supported by Brazil in the early years of the Council, is the possibility of the recovery of the defense industry. This time it would be with complementarity of the production chain and scale of scope, also aiming at "industrial cooperation as a way to overcome fears about an alleged arms race" (ABDUL-HAK, 2013, p. 222-238, our translation). A possibility of recovery is alleged, since, according to Fuccille (2018, p. 11), 1980s Brazil was considered one of the largest exporters of war material in the world, but2 this scenario changed in the 1990s. Thus, in seeking to rearticulate a South American-based Industrial Defense Base (BID), "the CDS presents the possibility of working on building a South American defense industry, with a large market driven by state orders and with participation of companies from their countries" (PADULA, 2015, p. 247, our translation).

> To name a few: the agreement to set up the South American Space Agency and the formation of a second air vehicle development working group in 2011; the agreement for the development of a regional unmanned aerial vehicle (UAV) under the CDS; Brazil and Bolivia have made arrangements to realize (as yet undefined) the first flights of a UAV from the former country to guard the joint border; project IA73 UNASUL-I, officially presented in December 2012, aimed at cooperation for the construction of a manned military pilot training aircraft, as a significant portion of military technology comes from

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2   "More precisely, throughout the 1980s the Brazilian defense industry came to rank among the 10 largest exporters in the world and the first among developing countries (Andrade et alli 2016; Mawakdiye 2006; Pim 2007). Just to illustrate, in 1988 the Brazilian ENGESA (Engenheiros Especializados S/A) produced approximately half of the Western armored wheeled vehicles (Dellagnezze, 2008, 29)" (FUCCILLE, 2018, p. 11).

> central powers at a high cost. In October 2014, Brazil and Argentina signed an agreement to strengthen cooperation in the aeronautical area. Brazil and Argentina are already developing several defense cooperation initiatives, such as the exchange of experiences in the cyber defense sector and the participation of the Argentine Aircraft Factory (FAdeA) in the production (of parts) of Embraer's KC-390. (PADULA, 2015, p. 247, our translation)

Regarding the fourth thematic axis of the main CDSs activities (training and capacity building), the most important and unprecedented event was the creation of the Center for Strategic Defense Studies (CEED) on March 10, 2009, having its status approved on May 6 and 7, 2010, in the city of Guayaquil, Ecuador. The Center seeks to generate strategic thinking at the regional level, contributing to the coordination and harmonization of defense policies in South America. Thus, it is a CDS instance that acts on the basis of intergovernmental dialogue, as it seeks to work in a shared way with the National Strategic Studies Centers on issues of regional interest.

The CEED's purpose is to contribute to the consolidation of principles and objectives established by the CDS's Statute in the generation of knowledge and dissemination of South American strategic thinking regarding regional defense and security, always at the initiative of the CDS's Executive Body. In other words, it seeks to strengthen confidence and transparency, based on reports on military spending and inventories (VITELLI, 2017, p. 11), as well as the monthly document "South American Defense Observatory," a record of key events, data and news prepared by the Center, notified by the respective CDS's Ministries of Defense.

> The CEED's Statute text resulted from a Brazilian-Argentine proposal that sought to meet the following objectives: a) to avoid characterizing the Center as an institution focused on monitoring activities; b) to make it clear that the Center should focus on defense and regional peace issues, excluding strictly public security issues from its scope; and c) to clarify that the production of the Center should be directed to the governments of CDS's member countries. (ABDUL-HAK, 2013, p. 153, our translation)

According to Pagliari (2015, p. 33, our translation), "the creation of CEED enabled to shape permanent body characteristics for regional integration issues in defense". As one of the empirical examples of CEED's work since the Buenos Aires-based Center's Opening Conference in May 2011, it already had an active stance on the geopolitical importance of natural resources as "strategic assets of common interest". (SOUZA, 2016, p. 140-141, our translation). Thus, this theme is one of the main axes of studies, which helps in the generation of analyses and information on the main components of South American natural wealth, guiding and systematizing future scenario configurations for the region. Therefore, the "Suramerican Prospective Studio 2025" emerged in November 2015, a thorough analysis that sought to consolidate aspects of regional defense, along

with other national and regional policies, in order to maximize the potential of South American strategic natural resources.

> Since 2009, this center has carried out works aimed at distinguishing and informing issues of common interest, such as: defense spending of the bloc's member countries, inventories of military material from the countries, the defense sector's institutionality (Ministry of Defense and Armed Forces), gender policy in the field of defense, as well as information on military exercises conducted in the region. This center gathers data provided by the 12 South American countries regarding their defense spending, periodically issuing a global report on these indicators in our continent and how it has evolved over time. (ARREDONDO, 2017, p. 22-23, our translation)

Another institution created was the South American Defense School (ESUDE), on February 20, 2014, through the 1st Paramaribo Declaration at the 5th Regular CDS Meeting. It is a CDS Center for Advanced Studies "with the objective of monitoring and articulating the national initiatives of member states for the training and capacity building of civil and military personnel in defense and security issues at the strategic political level" (ARREDONDO, 2017, p. 23, our translation), through teaching and research on themes common to the region, which contribute to the gradual advancement of a shared vision on regional defense and security.

After ratifying its establishment and status in December 2014, the School had no fixed physical location, but a permanent Secretariat that operates at the headquarters of the General Secretariat of UNASUR, in Quito, Ecuador, without generating obligatory financial contributions from member states. ESUDE courses are taught in different South American countries, and also through a virtual platform.

> Accordingly, as its executive secretary has recently put it, the role of ESUDE consists in promoting "the exchange of instructors, didactic material and research and teaching methodologies between defense schools in the region", by assisting national teaching institutions to share their assets with the rest, "using the ESUDE as a sort of repository for common assets and manager of combined activities". (VITELLI, 2017, p. 12)

In an effort to aggregate all UNASUR countries, the Advanced South American Defense Course (CAD-SUL), based at the Superior School of War (ESG) in Rio de Janeiro, had its first class in 2012. The course is aimed at civilians and military personnel, usually two students (one civilian and one military) from the twelve countries of UNASUR working in the defense field, fully funded by the Brazilian Ministry of Defense (ARREDONDO, 2017, p. 23-24). It aims to provide knowledge that enables the development of South American defense thinking, based on regional cooperation and integration. Its curriculum structure is developed over 10 weeks, with a total workload of around 330 (three hundred and thirty) hours, in which students perform theoretical studies and practical applications.

In addition to these training initiatives, Souza (2016, p. 136) lists other significant initiatives by member states, such as the Polar Technical Training Course, organized by Argentina; the South American Defense Civilian Training Course, already in its third edition; the Advanced South American Defense Course for senior Defense Ministry officials, also in its third edition; the first South American Course on Defense and Strategic Thinking, under the responsibility of Ecuador; and the first South American Course on International Law and Human Rights of the Armed Forces, coordinated by Peru.

In order to strengthen South America as peace and cooperation zone, the Council established Confidence- and Security-Building Measures (MFCS), such as: information exchange and transparency, intra/extra-regional military activities, unique methodology for preparation of defense spending spreadsheet in the region and standardized military inventory form.

In 2017, the Register of South American Defense Expenditures was presented, published by CEED, which presented the regional defense spending3 executed by the South American countries from 2006 to 2015. It is noteworthy that this Registry is an official report of UNASUR member disbursements in defense terms, based on a common definition of spending, a standardized technical methodology for measurement and an annual consultation mechanism for transparency.

Cumulatively, total regional defense spending for the decade was U$ 337,102 million, with an average annual regional expenditure of U$ 33,710 million. South America's defense spending as a percentage of regional GDP is stable over the decade, averaging 0.98%. This percentage shows that South America is globally below other regions in terms of regional defense spending regarding the GDP. Furthermore, with regard to regional defense spending in relation to regional fiscal expenditures, the average for the decade is 3.78% (CONSEJO DE DEFENSA SURAMERICANO, 2017).

Complementarily, Arredondo affirms that one of the CDS's challenges

> would be the ability to establish a genuine geopolitical model that considers the region's strengths, mainly characterized by the abundance of natural resources and by the political, social, religious and economic inter-complementarity. (ARREDONDO, 2017, p. 25, our translation)

In Abdul-Hak's (2013, p. 240) view, regional defense cooperation as proposed by the CDS offers collective gains to its member states, such as

> mitigation of inadequate means of defense in most UNASUR countries; the recovery and strengthening of the regional defense industry; reducing risks of regional isolation; the promotion of regular contacts between military commandos; the creation of trust; the rising costs of breaking multilateral

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3 "Defense spending is understood as: 'all resources allocated by the state for the funding of activities that include the country's national security'." (CONSEJO DE DEFENSA SURAMERICANO, 2017).

> commitments through the imposition of censorship and sanctions; the definition of functions for the Armed Forces outside the domestic political sphere; and the emergence of new players and networks of interest (around themes such as the defense industry) that may gradually contribute to overcoming old rivalries. (ABDUL-HAK, 2013, p. 240, our translation)

However, despite the advances, there are some extraregional obstacles to building an operative alliance in South America: a persistent USA regional primacy, a competitive system of alignments and growing extraregional influences. Moreover, from a constructivist perspective, Fuentes and Santana (2009, p. 571) provide an interesting picture of the future difficulties (and opportunities) of the CDS, both due to the low level of institutionalization the agreements have acquired and to the difficulty of measuring the redefinition of international interests and practices.

Since the creation of the CDS, there has been a negative turning point in its activities since 2015, with an emptying process of UNASUR and the CDS that converges with the power vacuum caused mainly by the Brazilian political-institutional crisis. "Brazil, sponsor of this new institutional structure, also presents itself ambivalently throughout this process, notably characterized by a discrepancy between discourse and practice" (FUCCILLE, 2018, p. 3, our translation).

Although a substantial portion of the bloc's depletion of power has as an independent variable: the Brazilian Government's stance on the project of regional integration and cooperation, such movement was not restricted to Brazil, with other South American countries pleading and ratifying their absences and departures of the Union.

> President Mauricio Macri – since his inauguration in December 2015 – and President Michel Temer – since May 2016 – have been talking about relaunching their foreign policies on a new basis. When the two largest countries in the subcontinent present this behavior it directly affects possibilities and expectations regarding security and defense cooperation. Even during Rousseff's administration (2011-2016), several senior officers and general-officers saw with great reserve ventures such as the CDS, often classifying it as an extravagance, fruit of daydreams of a leftist government that could not find its correspondence in reality. In short: a government policy and not a state policy that would not survive the alternation of power. (FUCCILLE, 2018, p. 14, our translation)

As it turned out, changes in the South American scenario, such as presidents with different worldviews, help to aggravate this scenario, since the personalist figure was an essential element for consolidation of the Council project. Also, according to Souza (2016, p. 134, our translation), these changes help in the collapse of UNASUR and, consequently, of the CDS, the "progressive crisis in Venezuela, with the death of Hugo

Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 127-150, May/August 2020

139

Chávez, as well as the election of Mauricio Macri in Argentina, breaking Kirchnerist policies and their expressive enthusiasm for CDS cooperation."

In 2018, some facts corroborate the prerogative of decelerating the cooperative process within the CDS and UNASUR. In April, Brazil, Argentina, Paraguay, Colombia, Chile and Peru suspended their participation in UNASUR indefinitely, alleging a deadlock over the choice of the organization's Secretary-General;4 in July, Cabinet Chief Yuri Chillán – who had been acting as De Facto Chief due to the vacancy of the Secretary-General since January 2017 – resigned; Also in July, Ecuadorian President Lenin Moreno announced the request to return the UNASUR headquarters building in Quito; In August, the Colombian government of Iván Duque announced the definitive departure of UNASUR – which may encourage other countries to do the same – shortly after the announcement of their entry as a "global partner" in the North Atlantic Treaty Organization (NATO), being the only Latin American country in the group.

In other words, the pattern of alignment between South American countries – which is set back in the second half of 2010 in the apotegma "the enemy of my enemy is my friend", which Philip Kelly (1997) calls *checkerboards* –5 has been impeding the development of more intense and lasting regional cooperation and integration. As an intensifying element of the process, the Brazilian omission is of paramount importance in the theme of (dis)integration and, specifically, of the non-continuity of a South American regional defense project and of the deepening of an embryonic Security Community.

4   The importance of brazil in the south american regional defense theme

Brazil's geopolitical vocation is in keeping with its 16,000 km of land borders with almost all South American countries (except Chile and Ecuador) and 7,500 km of maritime border – being the largest South Atlantic country. Belonging to the group of the five largest countries in terms of territory and population, among the world's ten largest economies in terms of GDP, approximately 95% of offshore oil reserves, and over 90% of its foreign trade by sea, Brazil is configured as a simultaneously maritime and continental country, a geopolitical duality in its strategic surroundings.

The term "strategic surroundings" comes from the National Defense Plan (NDP) of 2005 and the National Defense Strategy (NDS) of 2008, which originated the White Book of National Defense (2012). This concept had been a priority of the Brazilian Foreign Policy (PEB) in the 2000s, used in the speeches of former Foreign Minister Celso Amorim, his former Executive Secretary, Samuel Pinheiro Guimarães, and former President Lula. From these documents, the concept is defined as "the region

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4   "Another point that has been bothering – and very much – President Macri is the resistance placed on the name of José Octavio Bordón to UNASUR's secretary-general (which has been vacant for over a year and a half), especially the open opposition from Bolivia (who assumed the Pro-Tempore Presidency of the multipurpose bloc in April 2018) and Venezuela" (FUCCILLE, 2018, p. 15, our translation).

5   "Checkerboards appear as multipolar balance-of-power structures that reveal a fragmentation relative to the dictum, 'My neighbor is my enemy, but my neighbor's neighbor is my friend'. These phenomena have appeared throughout the foreign affairs of republican South America" (KELLY, 1997, p. vii).

where Brazil wants to radiate – preferably – its influence and its diplomatic, economic and military leadership, including South America, Sub-Saharan Africa, Antarctica and the South Atlantic Basin" (FIORI, 2013, our translation); i.e. the strategic surroundings can be classified as security perimeter, immediate area of influence and/or area of strategic interest.

Each country has strategic surroundings based on its geopolitical configuration in international relations, which is characterized as an anarchic, competitive, hierarchical and asymmetrical environment. However, intersections of multiple strategic surroundings reveal clashes of interest and conflicts in the international system, in which any presence or interference of external – or even internal – power in any country's strategic surroundings is viewed as a threat to its national security.

This fact is commonly mitigated from the correlation of mutual and reciprocal interests. The convergence is fruitful and lasting to the extent that regional integration projects are intensified. The ultimate objectives are outlined as a geopolitical goal in any integration project. Whether in terms of security, development, international power or identity, regional integration seeks to conflate the particular and collective interests of member countries and understand how such a project relates to hegemonic powers, leading to a change in the *status quo* of countries in the international system.

Regarding the area of Security and Defense, related to both regional integration and the Brazilian strategic surroundings, the creation of the CDS, as a Brazilian initiative for a common agenda among South American countries, aimed at building a deterrent force to defend strategic areas, such as the Amazon, the La Plata Basin and the Pre-salt, with an emphasis on sovereignty over natural resources and defense against interstate threats. As stated by Abdul-Hak (2013, p. 193, our translation), "Brazil is a country that has a lot to defend, but with limited effective defense capacity."

Since the first decade of the 21st century, Brazil began to develop a strategy of international affirmation and expansion of its presence in some geopolitical scenarios, in which the very conception of the CDS would be more than a collective defense body in its geopolitical perimeter: "CDS is for Brasilia a major step in its career towards recognition as a great power" (MIJARES, 2011, p. 7, our translation), and would serve as a collective legitimation for "Brazil's aspiration to become a permanent member of the United Nations Security Council" (JAIMES; MIÑO, 2015, p. 147, our translation).

Regarding the redesign of international geometry, economic change in South America is a new fact of enormous importance. According to Fiori (2013, p. 14), "Latin America will be increasingly hierarchical and the future of South America, in particular, will be increasingly dependent on the choices and decisions made by Brazil". Therefore, the country is in a strategic position "To appraise leverage or pivotal impact in international relationships. Certain countries are found in central or middle positions and, thus, may enjoy certain advantages in trade, resources access, and leadership" (KELLY, 1997, p. 15).

The sum of all its potentials makes Brazil a prime space for promoting development and regional defense of its South American strategic surroundings, with greater gains for the less developed countries. Whether due to its large consumer market, its industrial park,

its agricultural potential, or its military capacity, the steady growth of the most developed economy, when complemented by a quest for greater regional integration, will lead to increased imports from these partners, also increasing the demand for production of these countries and, consequently, their interest in collaborating with a geopolitical strategy that prioritizes integration, facing the external challenges imposed by the world economy (COSTA, 2013, p. 675-676).

Therefore, given its specific weight, it is of fundamental importance that Brazil assume the role of major regional and international player, of engine of economic expansion (COSTA, 2013, p. 675), of "whale country"6 (SOSA, 2013, p 137), of "integration leader" (KELLY, 1997, p. 179), and whose path to the international insertion of Brazil must be understood from the South American integration and cooperation point of view.

Returning to the historical series of regional defense spending, the annual variations recorded during the decade were increasing, albeit to varying degrees; only in the last fiscal year of the series (2015) there was a sharp reduction in regional defense spending, by 14.54% over the previous year (CENTRO DE ESTUDIOS ESTRATÉGICOS DE DEFENSA DEL CONSEJO DE DEFENSA SURAMERICANO, 2017). One of the possible hypotheses for this fact converges with the problematization of this article; due to the Brazilian political crisis and relative departure from UNASUR and CDS issues, there is a significant reduction in participation in economic terms, given that Brazil's regional defense spending accounts for a significant portion of the total.

Following the same logic of Brazilian political vacuum, another interesting data is the composition of defense spending at the regional level, which allows us to state that most is allocated to the Personnel category, with a 59.57% average for the decade, followed by Operations and Maintenance (22.60%), Investments (17.18%) and Research and Development (0.47%). In other words, a disinvestment process in the regional defense sector can be perceived from 2014 (17.72%) to 2015 (10.19%), the latter being lower in percentage terms for all series years (CENTRO DE ESTUDIOS ESTRATÉGICOS DE DEFENSA DEL CONSEJO DE DEFENSA SURAMERICANO, 2017).

There is a mutually beneficial relationship of reciprocity between South America and Brazil, since there is a strategic importance of the region for the Brazilian state, as the latter was the main promoter of the South American Defense Council in its early years, either by economic or political bias. In this regard, we can see a decrease in presidential diplomacy from Da Silva's Government to Roussef's Government, including South America (MILANI et al., 2014, p. 62-63). Moreover, after the impeachment process in 2016, this Brazilian declivity in its strategic surroundings becomes even more symptomatic, either by internal redirection aiming at political stability, or by changing the ideological bias in the external agenda.

With regard to foreign policy, it can be seen that from 2008 until 2018, there was a decrease in the importance that Brazil directed to its South American strategic surroundings. In Da Silva's administration, based on the haughty and active foreign policy, South-South

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6   According to Itamaraty's terminology, this type of country is characterized by its large geographical, demographic and economic dimension and by the fact that when mobilized, they agitate the world system.

cooperation and political, economic and diplomatic stimulus to South America, the strengthening and emergence of new themes in the international agenda was visualized, enabling the creation of the CDS in 2008. In Rousseff's administration, there is a process of relative continuity with its predecessor, but the prevalence of partnership diversification in the face of the transformation of the international scenario, invoking a lower profile of external action and a Brazilian contribution lower than expected in the CDS. With Temer, Brazil's leadership in South America is emptied, due to the political crisis, the unpopularity and lack of credibility of the president and, mainly, from the negative impact of foreign policy measures taken by his management (CASTILHO; BOAS, 2018).

Therefore, we sought to demonstrate the untapped geopolitical potentialities of Brazil in achieving a CDS-based integration process that reinvigorated the regional defense. Economic, geopolitical and diplomatic particularities show that Brazil's inaction or numbness has led to the CDS's failure. Thus, Brazilian actions within the CDS's framework explain its initial successes, and the omission in the most recent period explains its paralysis to some extent.

Regional integration is an integral and indivisible part of the pillar of Brazil's international insertion, security and defense strategy. Thus, the country presents itself as a polarizing and energizing center of South American integration because it: 1) is an indispensable player for the construction of an international political dialogue that contributes to the formation of another global governance structure; 2) is a leader in South America for its political and geostrategic influence, as well as possess material, organizational and doctrinal capacities to formulate a project with its strategic surroundings; 3) is already playing a central role in the integration process and its deepening; 4) has centers of industrial growth and innovation that can generate results of regional and international importance; and 5) is contributing to the shaping of a South American identity, essential for the creation of a South American Security Community.

South America has the capacity to establish itself as a Security Community through the CDS and to intensify autonomous integration projects through UNASUR. In addition, it has a common "diplomatic culture," recognizing the former colonial borders (*uti possidetis*), peaceful international coexistence (the principle of coexistence), the principle of non-intervention and mutual respect for national sovereignty, conflict resolution by diplomatic means, peaceful settlement of international disputes, including the use of arbitration, mediation and other similar legal and diplomatic techniques.

In the context of South American security, the fragility of countries is the biggest challenge, requiring a coordinated and joint response, with institutionalized power, but with Brazil as a regional power: "the institutional cohesion and the future of a possible security community have more to do with UNASUR's future than MERCOSUR's and the role played by Brazil" (FUCCILLE, REZENDE, 2013, p. 85, our translation).

Among the challenges for Brazil in the short-term intensification of CDS is the regular financing of activities; in the medium term is to find appropriate responses to regional security problems and defense industry exports; in the long run is the thickening

of UNASUR's general integration process (ABDUL-HAK, 2013, p. 241-242). Moreover, one of Brazil's main challenges to achieving regional security based on a Security Community is the need to establish itself as a state, not a government policy, "designed to be durable despite the political changes" (UGARTE, 2009, p. 15, our translation). There is also the attraction of certain endemic political and economic fractions, still contrary to integration projects with long-term gains.

> The security agenda in South America is in dispute. Its balance allows for both optimistic and pessimistic interpretations, or a mixture of these. The main challenge for establishing a regional agenda based on a South American identity within the CDS's framework is that it must result from the interaction of political agendas of member countries, of what they perceive as threats. [...] If Brazil is unable to promote an integration, security and development agenda for countries in the region, the trend towards fragmentation of integration projects will persist, making room for the penetration of external powers and their agendas seeking access to natural resources. (PADULA, 2015, p. 257-258, our translation)

In addition to Article 4 of the Federal Constitution of Brazil, which advocates Latin American economic, political, social and cultural integration, the integration of continental defense is fundamental for Brazil both in strategic and deterrent terms, seeking to prevent external interventions in the region, and for the economic integration of a defense industrial base, increasing its production scale in order to compete in foreign markets. Moreover, both NDT and CDS were linked to the country's foreign policy, since

> both the document and the regional defense body were linked to Brazil's pursuit of broadening South American articulation and to the region's incorporation into internal discussion around Brazil's national development plans. (FUCCILLE, 2018, p. 14, our translation)

As Santos (2018, p. 145, our translation) points out, in stating that regional security articulates national defense, "a scenario of stability and balance in interstate relations can be translated as regional or international security, which would require states to a willingness to cooperate in their strategic surroundings." Also, according to Abdul-Hak (2013, p. 240, our translation), the CDS, as a permanent space for regional consultation and reflection on strategic themes, "articulates Brazil's two traditional diplomatic objectives: the strengthening of inter-state cooperation as a means of minimizing the risks of using force in its geographical surroundings, and the consolidation of national and regional autonomy." In other words, from the Brazilian political point of view, it is convenient to form power blocs that result in a state policy facing external threats in the interstate system, whose geopolitical articulation among the South American countries is fundamental, even in their development strategies.

5   Final considerations

This article aimed to study the ten years of the South American Council and Defense (CDS), its advances and setbacks, outlining the main objectives of the bloc and the main practical actions in the period.

Nowadays, some factors show, after ten years, the crisis that both UNASUR and the CDS are going through: the smallness in the progression of a South American identity, the remaining existence of a competitive system of intra and extraregional alliances, the lack of a state policy, the successive political-economic crises of some member countries, the scarcity of foreign exchange for budget composition, the dispersion in the pursuit of common interests, the lack of practical political will from some member countries.

The CDS begins as an incipient collective security mechanism, with relevance at the regional level as a space for interaction between the national and the global; however, it was not configured as a Security Community, as mutual perspectives based on institutionalized common norms and interests and independent governance structures were not developed. Brazil's specific case, with its importance in regional and geopolitical defense, only ratified UNASUR's dependence on the largest country in the region, whose internal crisis directly affects the inoperability of the CDS in the final years of its decade of existence.

Although Brazil has a central role in the performance and functionality of the CDS, either because it is the main producer of military science and technology, the largest defense industrial hub and/or because it is a geopolitical link between the Southern Cone and the Amazon, its contribution has been decreasing over time. Therefore, although there are other alternative explanations about the current CDS paralysis, such as countries with ideological divergences, the end of the commodity boom, the organism's low institutionalization, it is based on the fact that the Brazilian omission is one of the most important variables, whose political vacuum and lack of leadership leaves doubt as to whether the country can establish itself as the basis of a future South American Security Community.

Therefore, it is concluded that there is no such Community, but only a trigger from the framework of the CDS's construction. The likelihood of constituting this community in the current context is very low, given that defense is a sensitive and parsimonious area and it is unrealistic to expect substantive advances in the short term. In addition, the political vacuum of certain sectors in key states contributes to this scenario in order to strengthen the project for the integration and shaping of a South American defense identity.

However, important elements for the effective building of a South American Security Community were created during the ten years of the South American Defense Council, such as the Center for Strategic Defense Studies (CEED), the South American Defense School (ESUDE), the Advanced Course of South American Defense (CAD-SUL), among other initiatives mentioned throughout the article. Such projects could move forward – or backward – according to policy makers at the regional level.

Therefore, the negative political scenario in the region – intensified by the Brazilian political and institutional instability – could seriously compromise the existence

of this incipient Community. As the experiences of the 2000s demonstrate, given Brazil's vital geopolitical and geoeconomic importance in the region, both Brazil's strategic surroundings and South American regional integration are indivisible parts of the same political project, whose security and defense play a fundamental role.

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147

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Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 127-150, May/August 2020

149

ECEME

Actions of military veterinarians from other nations in Chemical, Biological, Radiological and Nuclear Defense: a subsidy to modernize the Brazilian Army doctrine

La actuación del médico veterinario militar de otras naciones en la Defensa Química, Biológica, Radiológica y Nuclear: subsidio para modernizar la doctrina del Ejército Brasileño

Abstract: The involvement of military veterinary in responding to bioterrorism is anchored in Chemical, Biological, Radiological and Nuclear Defense (CBRN Defense). This study aimed to analyze the actions of military veterinarians from other nations in CBRN Defense, identifying technical and laboratory skills for these specialists, proposing trainings and courses in Friendly Nations and new doctrinal manuals in this field. This is a bibliographical review, in which manuals of Armed Forces from other countries like United States and Portugal were consulted. Thus the main CBRN attributions developed by veterinarians from Brazilian Army and from other countries were identified. This review concluded that a deeper knowledge in other countries doctrinal, combined with the development of international cooperation activities, would enhance the contribution of military veterinarians in defense against CBRN agents.

Keywords: Military veterinary medicine. CBRN Defense. Biological defense. Doctrine. Brazilian Army.

Resumen: La participación de la veterinaria militar en la respuesta al bioterrorismo está anclada en las competencias de la medicina veterinaria frente a la Defensa Química, Biológica, Radiológica y Nuclear (DQBRN). Así, el presente trabajo tuvo como objetivo estudiar la actuación del veterinario militar de otras naciones en DQBRN, identificando capacidades técnicas, competencias de laboratorio necesarias para este especialista, proponiendo entrenamientos, cursos en Naciones Amigas y nuevos manuales doctrinales en ese campo. Se trata de una revisión bibliográfica, a través del cual se consultó a los manuales de las fuerzas armadas de otros países como los Estados Unidos y Portugal. Así, se identificaron las principales atribuciones en DQBRN desarrolladas por el médico veterinario militar en el Ejército Brasileño y en otros países. Se concluyó que la profundización en el conocimiento doctrinal de otros países, sumado al desarrollo de actividades de cooperación internacional, potenciaría la contribución de la actividad médica veterinaria militar en la defensa contra los agentes QBRN.

Palabras clave: Medicina militar veterinaria. DQBRN. Defensa biológica. Doctrina. Ejército brasileño.

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Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 151-174, May/August 2020

151

1   Introduction

In view of the frequent cases of terrorism reported in the international media in recent years and the current globalization, worldwide defense measures have been increasingly important to protect animals and humans against agents that can be used as biological weapons and cause major damage to a country's economy (CARDOSO; CARDOSO, 2011).

Chemical, Biological, Radiological and Nuclear Defense (CBRN Defense) refers to the group of actions for the protection against chemical, biological, radiological and nuclear agents that produce harmful effects on health and material integrity (BRASIL, 2016a). In the context of the Military Doctrine, biological defense, a component of CBRN Defense, handles structured measures to be implemented by the Armed Forces to prevent and respond to attacks caused by biological or toxin agents (BRASIL, 2013a). In the broader context of society protection, biological defense is part of the multisectoral field of health security and CBRN emergency response (BRASIL, 2014b).

The health support from CBRN Defense aims to preserve human life and animal health, assuming a multiprofessional character, as it involves different health actors, such as physicians, nurses, veterinarians, nursing technicians and pharmacists, among others. Planning this support considers the characteristics and effects of chemical, biological, radiological and nuclear (CBRN) hazards. Health support actions are focused on preventive medicine, health surveillance and health programs (BRASIL, 2016a).

According to the doctrine in the Manual of Land Military Logistics Services, veterinary support is among the tasks covered by the Health Logistics Role, including veterinary support to animal health, troop health protection with health security actions (BRASIL, 2018). This activity assumes special importance when there is evidence of biological agents in the area of responsibility of the Operational Force in question.

Learning about and managing the human-animal-environment triad under the Unified Health System is the responsibility of veterinarians, critical for the prevention and control of the main emerging and reemerging infectious diseases involved in the military theater of operations.

In addition to biological defense, veterinarians are qualified to perform several other duties, such as water and food protection, bioprotection and public health, animal health, environmental management, research and innovation, among others. All these activities are somehow related to biological defense and should be included in doctrinal manuals (SOARES, 2014).

Brazil has increasingly participated in the United Nations (UN) Peacekeeping Missions, which draw special attention to the zoonoses that may affect the military in the work sites. Therefore, this subject must be the theme of debates and studies among military veterinarians, focusing on the search for doctrines of countries with advanced activities in this field.

The last manuals of the Brazilian military veterinary services were published in the 1970s. For this reason, the doctrinal procedures to guide veterinarians should be updated

and standardized, taking as reference the vast normative literature of veterinary services of other nations with experience in biological defense (MARQUES; DE ANDRADE LIMA, 2016). The Armed Forces of countries such as Portugal and the United States have been regularly used in NATO and other operations, especially in Asia and Africa. As a result, these nations have advanced doctrine in the field of troop bioprotection and can act as a reference for the development and reformulation of the Brazilian Army manuals, offering more employment opportunities for military veterinarians in Brazil (STEELE; ALVEZ; CHAPMAN, 2007; PENHA-GONÇALVES et al., 2016).

Then this study aimed to analyze the performance of military veterinarians from other nations in CBRN Defense, identifying technical and laboratory skills for this specialist and proposing training and courses in Friendly Nations and updated doctrinal manuals in this field.

This study is a descriptive literature review of applied nature. It used exploratory and selective reading of the research material and an integrative review.

A theoretical review on this subject was conducted using the following keywords: military veterinary, CBRN Defense, biological defense, employment, doctrine, and the corresponding terms in Portuguese (*veterinária militar, DQBRN, defesa biológica, emprego, doutrina*), through a bibliographic search in scientific articles from the databases of Google Scholar, PubMed, LILACS, SCIELO, and ISI, as well as books, academic papers, end-of-course assignments, legislation and doctrinal manuals of the Brazilian Army available at the EBConhecer portal repository, and documents and other national and international scientific studies.

The selection of research sources was based on publications by important authors in the academic environment of articles published in journals indexed by the Coordination for the Improvement of Higher Education Personnel (CAPES – *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior*), as well as doctrinal manuals of the Armed Forces from different countries.

The study design comprised the stages of bibliographic survey and selection, data collection, data analysis, analytical reading and file of sources, argumentation and, finally, discussion of results.

Study limitations include the difficult access to manuals of the Armed Forces from other countries and scarce information about the actions of military veterinarians from other countries in CBRN Defense.

2   Literature review

Worldwide armed conflicts that occurred in the 20th century were marked by decisive use of weapons of mass destruction, such as nuclear weapons. The accelerated evolution of science and technology in the last decades and increase in terrorism have enhanced the possibilities and the probability of using biological agents in future conflicts. Also, frequent threats from pandemics and epidemics devastated large continental regions in the early years of the 21st century. These public health emergencies, in many cases,

showed the magnitude of their negative impact on the economy and their ability to induce fear among populations, and above all, they showed important weaknesses in the existing response systems.

In this context, humanity has been affected by a growing wave of outbreaks caused by new and old pathogens, with 65% of all 215 most relevant emerging human infectious diseases corresponding to zoonoses. Examples of these biological threats are Ebola, avian influenza virus (H5N1) and anthrax (DE ANDRADE LIMA, 2016).

Using the military veterinary service in response to biological threats is anchored in the competences of veterinary medicine in the areas of epidemiology, infectious and parasitic diseases, and in the fact that biological agents can be used in bioterrorism through infectious agents that cause zoonoses and diseases in animals (POPPE, 2013).

United Nations Peacekeeping Missions may have different theaters of operations significantly impacted by various health problems, affecting military officers and the local population. Multiple challenges are found in these scenarios, which are difficult to resolve due to aggravating factors, such as poor conditions of food supply chains and local health and sanitation systems. A critical point is the fact that the health service teams are not familiar with the health problems found in foreign countries where the troops are distributed, increasing the risk, for example, of importing pathogens and late diagnoses of tropical diseases (SMITH, 2007).

De Andrade Lima (2016), based on the participation of Brazilian veterinary officers in Haiti, reported in his studies the main biological risks related to the environment in peacekeeping missions and presented the doctrinal basis of actions of these veterinarians, describing their main roles in the protection of troop operations, especially in food security, environmental management, and zoonosis and vector control.

Then in terms of food security, food can be contaminated by the use of CBRN weapons or by a terrorist contamination of food supply facilities and food supplies. CBRN agents can be inserted in ingredients before they reach the production facilities, during production, in the storage area of the supply facility, while the product is in transit, in the military storage facility, or when installing the unit ranch. Regardless of where the agent is used, the effect is the same, that is, one can get sick or die after consuming the contaminated food. To ensure food protection, veterinarians must inspect and monitor foods, from their acquisition to consumption. In the whole area of a military operation, the personnel involved in the service and logistics must take precautions to protect subsistence food against contamination through actions called food defense (BONI; CALVET; BORNERT, 2016).

A CBRN incident is also considered a significant and realistic threat against military working dogs (MWD), also called war dogs, and against government-owned animals (GOA), such as horses. Both chemical warfare agents (CWA), which can be dispersed by aerosol, steam or liquid, and through ammunition or other methods, and toxic industrial materials (TIM) pose a threat to these animals, because these agents can be

used offensively, or be accidentally released or be part of an accidental disaster. In addition, MWDs tend to be contaminated with CWAs and TIMs because they work close to the ground and do not always wear paw protectors or proper protective clothing, and can lick their own hair or paws, or drink water or eat contaminated food. Diseases caused by an offensive use of biological warfare agents (BWA) are lethal or disabling. These agents can infect the animal population in a certain contaminated area; and diseases caused by biological weapons in humans can lead to less severe clinical signs in working dogs, mainly due to the variation in susceptibility between species of most BWAs. MWDs and GOAs can be a source of zoonotic infection and be fomites or vehicles of arthropod vectors (UNITED STATES, 2016).

As several transmissible biological agents can be used in bioterrorism, adopting containment and decontamination measures and individual and collective protective equipment is extremely important to prevent contamination and infection of the professionals involved in this type of situation, which would increase the number of victims (CARDOSO; CARDOSO, 2011).

A veterinary response to CWAs and TIMs will depend on the agent, dispersion method, route of exposure, clinical signs and duration of contact between MWDs/GOAs and the agent. In general, these animals show similar clinical signs to humans for most CWAs. Respiratory absorption may occur after dispersion of agents in aerosol, vapor or liquid forms, and it represents a major concern due to the speed of absorption and toxicity. Agent absorption through the mouth can occur simultaneously with respiratory exposure. However, oral and gastrointestinal absorption is also a major concern when an animal ingests contaminated food or water or licks its own contaminated skin. Absorption through the paws is the biggest concern, since paw pads have sweat glands and no hair, promoting an effective absorption of agents. And due to a combination of hair coverage and a lack of sweat glands, these animals present a lower risk of chemical absorption through the skin than people; however, risks are still significant and surface decontamination procedures must be performed (UNITED STATES, 2019).

2.1 Veterinarians in cbrn defense in the brazilian army

The field of biological defense is among the various areas of action of military veterinarians. The importance of veterinarians in this field goes back to late 19th century and early 20th century, when the health situation of the Brazilian herd did not have quality standards that would allow the agricultural activity to meet the needs of society and the Army. In addition, the high incidence of diseases such as foot-and-mouth disease, malaria and the spread of glanders revealed vulnerabilities in the health control system, which implied serious economic limitations (PIMENTEL, 1942).

In those days, the Brazilian government sought foreign help and sources that would allow the country to adapt technologically to the challenges and inaugurated in 1896 the Laboratory of Clinical Microscopy and Bacteriology of the Army, currently the

Institute of Army Biology (IBEx – *Instituto de Biologia do Exército*), which led to the creation of the Veterinary School of the Brazilian Army (GERMINIANI, 1998).

The Technical Manual T 42-260, Veterinary – Veterinary Hygiene, of 1967, mentions soil and water hygiene, addressing water supply, collection, distribution, potability criteria, wastewater destination, control of pests and vectors, pathogenic microorganisms, and even prevention of snakebites. It indirectly mentions, in general terms, that the factors favoring the disease process in animals are shared by humans, attributing to veterinarians the role of co-participation in the promotion of human health. It is the first Veterinary Service Manual that clearly addresses the integration of animal health and human health aspects, and environmental aspects (BRASIL, 1967).

The most recent land military doctrine recognizes the veterinarian involvement in health promotion. According to the 2018 Military Land Logistics Manual, which provides operating doctrine, veterinary medicine is identified as a strategic field in the health area. This manual mentions health intelligence, zoonosis control, water and food quality management, biological defense and environmental management as areas of veterinary practice (BRASIL, 2018).

In the Brazilian Army doctrine, more detailed information about military veterinarians in a CBRN environment is provided in Chapter IX of the Army CBRN Defense Service Manual, updated in 2016. It shows that veterinarians are trained to work with multifunctional health groups in the areas of health intelligence, health estimates, health surveillance, laboratory analysis, sample collection, screening and decontamination, health treatment, evacuation and support in mortuary issues (BRASIL, 2016a).

Their joint actions in health, which are in expansion in the Brazilian Armed Forces, are addressed in the recent Manual of Health Support in Joint Operations, issued in 2017 by the Ministry of Defense, which describes the actions of veterinarians as critical for support and treatment of animal health, pest control, assessment of threats related to endemic zoonotic diseases, food security, and guarantee of health and quality of foods for consumption that otherwise could be used in bioterrorism, and sanitation of the various operational units implemented on site. The manual considers the presence of veterinarians as soon as possible in the area of operation and planning joint operations (BRASIL, 2017).

In general, veterinarian training comprises fields in common with s similar to CBRN Defense. In the undergraduate course, students learn about biochemistry, biophysics, microbiology, infectious diseases, parasitology, food inspection, among other disciplines, favoring their growing participation in this area, both in the Army and civilian environments, especially in situations of health crisis and natural disasters.

A 2014, the first CBRN Defense training for Health Officers (BRASIL, 2013a) was provided at the School of Specialized Instruction (EsIE – *Escola de Instrução Especializada*) to train different health specialists, including veterinarians, to work in that area at the World Cup held in the same year, in the city of Rio de Janeiro.

In the following year, the contribution of veterinary to this field of knowledge consolidated with the creation of the first Specialization Course in CBRN Defense for Health Officers (BRASIL, 2014a), also at EsIE, through which military veterinarians became specialists in this field, acquiring knowledge and practice in health support in a CBRN environment. This course involved the work of a multidisciplinary health team that included physicians, dentists, pharmacists, nurses, and military veterinarians.

Since 2015, one military veterinarian joined the research team of the Institute of Chemical, Biological, Radiological and Nuclear Defense (IDQBRN – *Instituto de Defesa Química, Biológica, Radiológica e Nuclear*) of the Army Technology Center (CTEx – *Centro de Tecnologia do Exército*), developing new knowledge in the field of biological defense.

In 2016, during the Olympic Games in the city of Rio de Janeiro, three veterinarians specialized in CBRN Defense worked in this major event, as the CBRN Defense health team leader and CBRN Defense Health Officer (PEREIRA, 2017).

In 2017, one of the veterinarians trained in the first class of CBRN Defense specialists, was a biological defense instructor in the CBRN Defense Division of EsIE, also participating in other activities and the basic and advanced courses in "Assistance and Protection Against Chemical Weapons" organized by the Organization for the Prohibition of Chemical Weapons and held in Serbia and Pakistan, respectively.

2.2 Veterinarians in cbrn defense in armed forces from other countries

For many decades, veterinarians of the Armed Forces from other nations have participated in military peacekeeping or war operations; for instance, the Armed Forces with significant combat experience, such as the United States Army (USA), have operated in theaters of operations where illnesses, especially tropical ones, have caused more deaths of the military than the combat itself. It is not different in peacekeeping missions. For example, in one of the first Brazilian experiences in UN missions in the 20th century, three soldiers died of malaria in Angola due to several failures in vector control and prevention of this endemic disease (SANCHEZ et al., 2000).

The subsections below will address CBRN Defense activities developed by the Armed Forces from different countries, with an emphasis on biological defense.

2.2.1 The United States

The United States Armed Forces developed a joint manual for the Army, Navy, Air Force, and Marine Corps FM 4-02.7 / MCRP 4-11.1F / NTTP 4-02.7 / AFTTP 3-42.3 (UNITED STATES, 2016), updated in 2016, which addresses tactics, techniques, and procedures for supporting health services in a CBRN environment.

According to this manual, after receiving a CBRN warning, veterinary leaders implement contingency plans and guide the veterinary personnel to assume the appropriate

level of Operating Preventive Protection Measures (MOPP – *Medidas Operacionais de Proteção Preventiva*). The definition of MOPP levels, which range from 0 to 4 according to the increase in the level of protection, considers the probability of occurrence of attacks and the types of CBRN hazards. After defining the required level of MOPP, the veterinary personnel, within the limits imposed by the tactical situation, ensures that actions are taken to protect subsistence items, war dogs and other GOAs.

In some cases, the U.S. Army Veterinary Service provides support to partner agencies such as the Departments of State, Agriculture, Commerce, Transport, Security and Justice (Drug Enforcement Administration); the Federal Bureau of Investigation; the Central Intelligence Agency; and Human and Health Services, such as the Food and Drug Administration and the Center for Disease Control and Prevention (CDC).

2.2.1.1 Food defense

The responsibility for the physical structure of food storage, from the place of origin to consumption by the United States Forces, must be assigned through tactical Standard Operating Procedures (SOPs). Veterinary personnel assist commanders in the development of preparedness plans and tactical SOPs for protection, decontamination and use of subsistence items in the CBRN environment. To mitigate the risk of foodborne illnesses, all units must implement the basic risk management principles (Figure 1).

Figure 1 – Flowchart representing the risk management system adopted by the U.S. Armed Forces to ensure food security in a CBRN environment
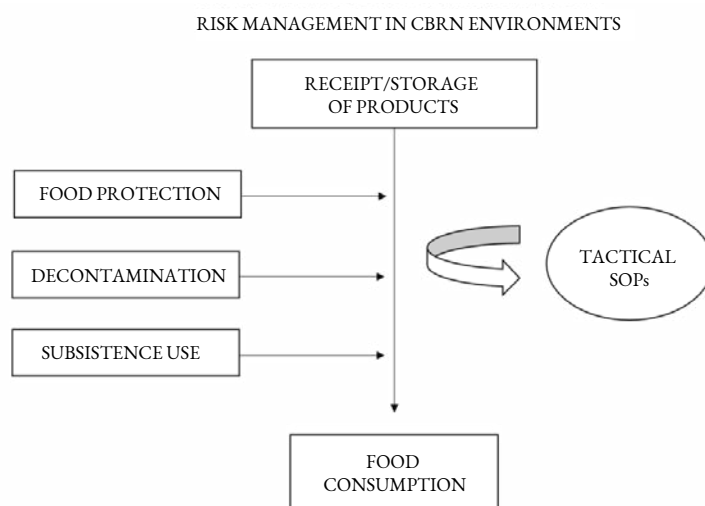
Source: Developed by the authors (2019).

The availability of uncontaminated Class I subsistence items in the area of operations depends on the amount of planning taken to protect subsistence. Proper defensive behaviors for attacks by chemical agents (CA) will also protect food against contamination by biological agents (BA) and radioactive precipitation.

All planners must incorporate food and water risk management into the planning, preparation and execution of all operations. Medical planners must identify all food protection issues as they develop health attachments to operating orders. The veterinary team officer provides information about all food defense issues to the medical planner for inclusion of these attachments in the Health Service Support Planb.

After receiving the water and food risk assessment with recommendations of risk mitigation, operational commanders are responsible for health risk decisions to allow the purchase of food and water from sources without prior approval.

After a CBRN attack, all subsistence within the boundaries of the affected area is considered contaminated and treated accordingly, until a test determines which foods are safe for consumption. Veterinarians scan subsistence tanks contaminated with CBRN agents to assess the situation and obtain data, using available CBRN detection equipment. The scan is conducted, if possible, in conjunction with CBRN detection teams.

Packaged foods are tested for the presence of CBRN agents. The presence of unusual liquids or stains is usually observed. The degree of biological contamination can only be determined by laboratory analysis. Symptoms and contaminated animals are recorded, and macroscopic pathology tests are performed. This information, combined with histopathology and other laboratory tests, helps identify the nature, level and type of CBRN agent.

In most cases, subsistence decontamination does not start until the surrounding area and the storage facility are decontaminated. The decontamination process can significantly reduce the subsistence storage period, thus requiring a fast action of the supply system.

Decontamination should be performed just enough to support operations, and not to try to control or create a contamination-free environment. Decontamination efforts are usually limited to the scope and nature of packaging. In addition, food decontamination, if necessary, only occurs in critical situations where other food supply options are not available.

Laboratory analysis in veterinary units is focused on confirming the presence of biological agents, particularly foodborne pathogens and some chemical contaminants. In case of a positive result in the initial screening, samples can be sent for further testing to the Area Medical Laboratory in Aberdeen Proving Ground (APG), Edgewood, Maryland; the Department of Defense's Food Analysis and Diagnostic Laboratory (in Fort Sam Houston, San Antonio, Texas); or the European laboratories of the U.S. Army Public Health Center, in Landstuhl, Germany, through the Department of Microbiology Molecular and Biology, and the Division of Veterinary Pathology of Science Laboratories. Food samples suspected of containing BA or CA are transported by a specialized CBRN Defense team.

In the United States, the main foodborne pathogenic bacteria can be identified by many state-owned diagnostic laboratories and the CDC. A chain of custody

Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 151-174, May/August 2020

159

documented in a form must be provided with all food or water samples suspected of being intentionally contaminated or containing endemic pathogens of food or water origin. These samples will not be separated before arriving at the first receptor laboratory to prevent accidental sample contamination and ensure valid samples reach the destination laboratory.

2.2.1.2 Medical-veterinary assistance

Animals should be protected from CBRN contamination, when feasible. In addition, if possible, they should be placed into compartments to avoid contamination. Protective equipment is not available for MWD; however, protection of the animal's paws and body must be considered. When MWDs need to cross a contaminated area, paw protection can be improvised, for instance using rubber items, and dogs can be transferred to vehicles to avoid contamination.

As collective protection systems are not part of the veterinary units, veterinary assistance facilities for animals must be created in areas free from contamination. The veterinary care team must remain at MOPP Level 4 when treating victims of animals contaminated by CBRN agents, until they are decontaminated. Veterinarians must be practical when considering requests for evacuation and handling contaminated animals; the main focus is the safety of the unit and support staff.

Decontamination of MWDs and GOAs and GOA equipment must be performed as soon as possible to avoid or reduce any additional absorption of CWAs or TIMs and prevent cross contamination. During decontamination, special attention should be dedicated to the face, ears, eyes, nostrils, abdomen, tail, paws and the region between the legs.

Veterinary responses to threats or use of biological weapons may vary, depending on whether veterinary measures are employed before or after exposure, and whether symptoms are present. If provided prior to exposure, active immunization or antibiotic prophylaxis can prevent disease in exposed MWDs.

Active immunization can be effective against several potential agents in humans, but there is no canine immunization approved for probable BWAs. The best future protection for MWDs against a wide variety of biological threats is the implementation of vector control measures and proper decontamination procedures; however, these animals are often less susceptible than humans to most BWAs.

If a MWD is contaminated by a biological agent, decontamination must end with soap and water, as previously described. The equipment of these animals must be decontaminated with 5% chlorine solution.

In the case of attacks with nuclear weapons or exposure to radiation from nuclear or radiological accidents, MWDs will present the same types of medical problems observed in humans. These medical problems will include explosion injuries, thermal and radiation injuries, and radiation sicknesses, depending on the amount of radiation received. Veterinary care will be based on the dog's clinical condition and its prognosis for recovery.

2.2.1.3 Veterinary public health

Veterinary public health identifies and controls zoonoses and foodborne and waterborne diseases.

Animals can act as sentinels (markers) for contamination or CBRN exposure. Attention should be paid to reports of unexpected death or disease in wild or indigenous animals, especially if the onset is sudden and affects a large number of animals in a short period. This is especially important for BWAs, as many of them cause similar clinical signs in animals and people.

2.2.2 Portugal

After the terrorist events that occurred in 2001, the threat of bioterrorism and agroterrorism became a priority of studies and investments aiming to build surveillance and prompt response capabilities. Following the new strategic concepts of the North Atlantic Treaty Organization (NATO), the Portuguese Army took the initiative to establish a Biosafety Level-3 (BSL-3) laboratory). The Portuguese Army's Biological Defense Laboratory (LDBE – *Laboratório de Defesa Biológica do Exército*) was inaugurated in 2006, providing the Land Force with additional operational capacity in the area of biological defense, reinforcing the triad of recognizing, identifying and decontaminating. Since then, the LDBE has been part of an international consortium for CBRN Defense research with Germany, Italy, Poland and other countries, with a focus on the design and implementation of projects for the development of new technologies and systems to detect biological agents, and new recognition techniques and development of decontamination methodologies (FREITAS, 2012).

These projects included SNIFFER (2013-2016), which aimed to develop a system or platform for the integration of CBRN agent detection and identification equipment that could be arranged at several more sensitive or vulnerable points in food production or distribution chains. This system provides countermeasures to mitigate a possible incident with CBRN agents in the food production and marketing chains. Another important project for the biological defense area was RACED (2015-2018), which assessed the risk of exposure to persistent biological and chemical agents on surfaces after application of the decontamination procedures defined by the Armed Forces of European member states of NATO. In this consortium, the LDBE sought to optimize procedures for the collection of biological agent samples from the surfaces of different natures and quantify the residual contamination of biological nature that may persist after decontamination of these surfaces, allowing a subsequent exposure assessment (PENHA-GONÇALVES et al., 2016).

2.2.3 Argentina

The Argentine Veterinary Service supports the Argentine Army, and its main responsibility is to maintain the health of animals and their good conditions for

Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 151-174, May/August 2020

161

service, food inspection, prevention of zoonoses, and environmental preservation. The *Diretoria Departamental de Veterinária* (Veterinary Department Administration) is the agency that plans the administration and supply of war animals to the country, according to its operational needs. Its main activities include conservation and recovery of physical conditions of animals, prevention of zoonoses, inspection of food products consumed by the troops, coordination of intelligence work about the enemy's veterinary material, collaboration with the troops for the development of passive defense measures against CBRN action, and provision of instructions to service personnel (DÍA..., 2012).

In events with more victims than expected, the affected animals from the combat zone are gathered in veterinary facilities, located along the axes of their units. The veterinary service must coordinate veterinary public health measures with the civil affairs units to reduce health hazards affecting the troops. The only body in Argentina that can provide support to CBRN Defense is a division of the Argentine Army created in 1998 for this purpose *Companhia de Engenheiros QBN e de Apoio à Emergência 601* (DÍA..., 2012).

2.2.4 Finland

The Finnish Armed Forces have a mobile diagnostic CBRN field laboratory approved in 2013 according to NATO standards. Besides CBRN detection units, this laboratory, which has one veterinarian in its staff, has a specific segment of field hygiene that can conduct quality control of food and environmental samples (KINNUNEN et al., 2012).

This field laboratory, designed to meet BSL-3 requirements, has modern and compact functionality and is ready to be used for a variety of defense purposes, including international crisis management. The laboratory has four separate modules, that is, laboratories that analyze chemical (C), biological (B), radiological/nuclear (R/N) samples, as well as hygiene (H) from food and environmental samples. A semi-trailer provides the necessary infrastructure, with C and B laboratories – R/N and H laboratories are located in two tents with air conditioning, adjacent to the semi-trailer. This mobile diagnostic CBRN field laboratory and its highly trained personnel can be transported by land, sea or air, and it is fully operational for 72 hours without external support (KINNUNEN et al., 2012).

2.2.5 Russia

Russia has a huge system of research and production of biological weapons organized by the Ministry of Defense and a civil organization called *Biopreparat*, which has a large number of units spread across the country. Due to a constant concern about agents of medical and medical-veterinary importance, such as the Ebola virus and bacterial toxins, the Ministry of Rural Economy has designated one of the units to support the

Veterinary Service, whose responsibility is to maintain a secret inventory of biological products (MOODIE, 2001).

2.2.6 Spain

Spanish military veterinarians perform their activities in biological defense and other interprofessional fields, such as chemical, nuclear and radiological defense. These specialists perform field work, conduct studies and manage high-tech laboratories. This way, they ensure protection to troops in domestic and international operations (CIQUE, 2003). In addition to CBRN Defense, veterinarians are responsible for campaigns of environmental sanitation, food safety, and pest monitoring and control in fields, ships and airplanes, thus avoiding entry of microorganisms in the national territory. In public health, military veterinarians are present in great number, acting in areas like food security, zoonoses, pest control, entomological surveillance and environmental sanitation. To accomplish their missions, military veterinarians have field laboratories and equipment to be used across the national territory and in international operations, including field modular laboratories; sampling equipment; biological defense equipment; state-of-the-art equipment for cleaning, disinfection, deinsectization and deratization for pest control; biological disintegration equipment; entomological diagnostic equipment; equipment for cleaning, deinsectization and sanitation for medium and large goods vehicles; radioactive detection equipment; food analysis equipment; veterinary assistance kits for animals; insect control equipment; and equipment for cynological groups (FERNÁNDEZ-CAPARRÓS, 2013).

2.3 technical and laboratory skills, training and updated doctrine in cbrn defense in the context of military veterinary

2.3.1 Technical and laboratory skills

As previously discussed, military veterinarians of the Brazilian Army is technically qualified to perform according to the CBRN Defense doctrine in the areas of health intelligence, health estimates, health surveillance, laboratory analysis, sample collection, screening and decontamination, health treatment, evacuation and support in mortuary issues (BRASIL, 2016a).

They can also work, according to the Brazilian Army doctrine, in control of zoonoses, management of food and water quality, and environmental management, which are fields of knowledge intrinsically linked with CBRN Defense (BRASIL, 2018).

At a U.S. Veterinary Corps, veterinarians are trained to act in CBRN environments, in protection and decontamination of personnel, subsistence, equipment, and military working dogs. The commanders of these units develop contingency plans and

tactical SOPs so that veterinary teams can operate in the contaminated area (UNITED STATES, 2016).

In Argentina, its Veterinary Service supports the Argentine Army, collaborating with the troops in the development of preventive measures against the CBRN action (DÍA…, 2012).

Spanish military veterinarians, in order to accomplish their missions, have CBRN Defense laboratories with high-tech regulatory field equipment to be used across the national territory and in international operations (FERNÁNDEZ-CAPARRÓS, 2013).

In the CBRN Defense doctrine of the Portuguese Army, a biological defense system was developed by teams of specialists with advanced technologies for recognition, detection and decontamination, equipped with laboratory capacity and supported by a laboratory of high biological security, with access to ultra-resolution methodologies. This modern equipment is continuously used in the development of master's and doctoral research, integrating graduate studies and ongoing investigation projects. Scientific publications and communications are the hallmark of scientific quality of the results obtained, and the maintenance of this dynamics depends on the renewal of the Veterinary Service's staff (PENHA-GONÇALVES et al., 2016).

The Portuguese Ministry of Defense concentrated its efforts on establishing capacities of support to operations, creating specialized Biological Defense Teams equipped with advanced technology and high levels of protection for biological assessment and recognition in crisis situations caused by deliberate (bioterrorism and/or biocrime) or not deliberate releases (epizootics, epidemics, accidents with agent release). Using the BSL-3 laboratory structure as a back-up support for the identification and quantification of biological agents, the Biological Defense Teams work in conjunction with other capabilities in CBRN Defense of the Army (FREITAS, 2012).

In a vision of the future, LDBE seeks to perform activities to reach a new level of operational support in biological defense, such as nanomorphology in the identification of biological agents; development of robotics in actions of CBRN recognition, detection and decontamination; increasing the degree of laboratory biological safety to allow the manipulation of synthetic or modified biological agents with unknown pathogenic potential (BSL-4); and participation in joint international cooperation actions (PENHA-GONÇALVES et al., 2016).

2.3.2 Training

The search for new knowledge and the exchange of experiences between national and international civil and military institutions that actively operate in the field of CBRN Defense are critical for the improvement and update of the Brazilian Army professionals, and for the constant preparation for a CBRN incident.

Among the Brazilian institutes dedicated to CBRN Defense that are open to improvements, and actions and collaboration of military veterinarians, IDQBRN is comprised of a group of researchers, military and civilians. It has contributed to the

growth of this area in the Brazilian Army, especially due to international cooperation in expansion (BRASIL, 2012). This institute has a CBRN Defense BSL-3 mobile laboratory. Currently, one veterinary is among its group of researchers, linked with the Laboratory of Biological Defense (LDB) of this Institute that operates the mobile laboratory and conducts doctoral research about the presence of *Bacillus anthracis* in the environment.

Another Brazilian Army institute with intense activity in CBRN Defense is IBEx, which recently created its own graduate program, offering a master's degree in biodefense. This institute has a BSL-3 laboratory for the identification of biological agents, which conducts research in the area of biosafety with the collaboration of other research centers, such as the Oswaldo Cruz Foundation, and other national and foreign forces. However, this biodefense center has never had a veterinarian in its staff.

Despite more restricted areas for veterinary practice, the Military Engineering Institute (IME – *Instituto Militar de Engenharia*) is responsible for providing technical and scientific support about CBRN Defense to the Brazilian Army and has training and graduate programs in the fields of chemical and radiological defense; also, it conducts research with the cooperation of foreign institutions and develops, in Nuclear Engineering, the basic and advanced levels of radiological protection for multiprofessional health teams, including military veterinarians (BRASIL, 2013b, 2013c).

At an international level, the Portuguese LDBE aims to build a network of partners and collaborators to promote direct interventions in its areas of interest and a good position in the context of national and European actors in the area of CBRN Defense, ensuring proper and balanced visibility as its sensitive mission requires. Its current network of partners includes national and foreign military and civilian entities from the academic or business universe, as well as recognized institutions and authorities (PENHA-GONÇALVES et al., 2016).

Training programs between the Brazilian Army and civilian and military institutions from other countries for the field of military veterinary could cover the following units, with their respective specialties:

a. Portuguese Army's Biological Defense Laboratory (LDBE – *Laboratório de Defesa Biológica do Exército*) of BSL-3. This laboratory recently received, for the first time, the visit of an Army veterinarian, a member of the Ministry of Defense, to learn about its physical structures and establish contact for future activities;

b. Mobile diagnostic CBRN field laboratory of the Finnish Army – field hygiene segment, responsible for quality control of food and environmental samples;

c. *Biopreparat*, linked with the Veterinary Service of the Russian Ministry of Defense, which is a system of research and production of biological weapons;

d. The U.S. Army Veterinary Service with CBRN Defense operations, including the Fort Hood Sentinel, in Texas, for animal decontamination and treatment in CBRN environment. The veterinarians and animal care specialists of the Fort develop training in partnership with universities to es-

tablish care protocols for animals affected by national disasters and CBRN incidents (CONNER, 2018);

e. CBRN Defense laboratories of the Spanish Army equipped with advanced technology.

2.3.3 Doctrine update

In Brazil, there is still no document addressing the activities of military veterinary in CBRN Defense. However, the Ministry of Defense, together with the Ministries of Science, Technology and Innovation and the Ministry of Health, developed in 2016, prior to the Olympic Games in Rio, a collective technical note, establishing and standardizing procedures to be adopted during the event by the several civil and military bodies, agencies and institutes, including health teams trained in CBRN Defense. This note was developed considering the possibility of occurrences with a CBRN incident, with provisions addressing care, screening and removal of CBRN victims; aeromedical evacuation; handling and transportation of samples; in addition to the definition of responsibilities to the main actors in this environment (BRASIL, 2016b). Despite not being defined in the document, in this context of responsibilities, veterinarians are inserted in handling and transportation of animal samples.

The joint health manual for CBRN Defense of the U.S. Armed Forces, and the other manuals mentioned in it specifically related to the veterinary activity of each U.S. Armed Force have a detailed description of the capabilities of the Veterinary Service in CBRN Defense, acting as reference materials for updating and reformulating, not only the CBRN Defense manuals of the Brazilian Army, but all the manuals addressing the actions of military veterinary, both individually and when inserted in the health service.

The U.S. Army Veterinary Corps, created in a CBRN environment, is focused on the protection and decontamination of personnel, equipment and war dogs, areas that deserve to be highlighted and included in the Brazilian Army doctrine (UNITED STATES, 2016).

The LDBE sought to bring innovative aspects to the CBRN Defense area of the Portuguese Army, either by introducing a technical-scientific component in the design of operating procedures, or by printing a culture of cutting-edge technology in operational support to specialists in the field. This approach has allowed updates, reformulations and innovations in relevant areas of the CBRN Defense doctrine of the Army, leading to the introduction of laboratory support for recognition and decontamination operations, and innovation in research and technological development activities, with an impact on operational capabilities (FREITAS, 2012).

3   Discussion

Despite being defined by the General Administration of the Army that military veterinary is today a strategic specialty in the field of health, as it is dedicated to the actions of biological defense, public health/sanitary surveillance and environmental management (BRASIL, 2010), it is a military health field that performs activities in military operations that are not yet well defined in the Brazilian Army manuals.

Biological threats represented by intentional actions or natural events are a concern of States and international institutions. The current global context contains determinants that help increase biological threats, such as conflicts throughout the planet, flows of refugees, easy access to biotechnologies that support genetic manipulation and synthetic biology, climate change and massive deforestation, favoring the destruction of ecological niches and reduction of natural epidemiological barriers (JANSEN et al., 2014).

In fact, the influence of thawing at unprecedented speed has been recently reported as leading to reactivation of microorganisms, such as those that cause anthrax, smallpox and pest, which were dormant for long periods (SERRANO, 2019).

The work in CBRN Defense performed by the Armed Forces in Brazil requires a multidisciplinary team, and the technical-professional knowledge of veterinarians has proved to be essential and increasingly important in Brazil and worldwide. The potential use of biological weapons by terrorist groups and even nations has increased quickly, just like the availability of information and the easy access to technical knowledge and equipment for handling CBRN materials (CASTANHEIRA, 2016).

In response to this scenario, which requires strengthening of international biological defense systems as an important tool to discourage and prevent these threats, the Portuguese Army is an example of solid base to develop a projectable biological defense system in a field of limited availability of means with operational specialization, followed by Spain, which has high-tech CBRN Defense laboratories, and Finland, with a mobile CBRN laboratory, both operated by their veterinarians, in addition to Argentina, whose Veterinary Service collaborates with the troops in the development of CBRN preventive measures (FREITAS, 2012; KINNUNEN et al., 2012; FERNÁNDEZ-CAPARRÓS, 2013; DÍA..., 2012).

The Brazilian Army, to acquire more experience and improve, must interact with different partners to increase the laboratory and technical-scientific capabilities of the Military Veterinary Service. Such improvements would strengthen the technical support and trust in the quality of the response, which, in turn, would expand the diversity of operating scenarios and the dimension of operational capacity.

The Brazilian Army has grown more and more in terms of technology and research in the area of CBRN Defense; it has a BSL-3 laboratory and a CBRN Defense Mobile Laboratory in good operating conditions, with IBEx, CTEx and IME as its main development sites. Some partnerships have already been created, with frequent exchange of professionals, but with few opportunities for veterinarians to work in these places. In addition, in general, the military personnel of the Brazilian Army who dedicate mainly to laboratory activities are not usually involved in operational activities, just as operational military personnel are usually far from the laboratories. And the actual number of career military personnel tends to decrease more and more with career plan adjustments, creating obstacles to flexible practice.

Comparatively, in the LBDE, the military directly involved in operational activities also develop and conduct research and technological development projects, just like the Biological Defense Teams, which provide direct support to operations. This

model adapts research activities to operational needs, creates opportunities for immediate migration of laboratory methodologies and technologies developed for operational benefit. A recent example of this LBDE strategy was the investigation into an extensive outbreak of viral gastroenteritis in Portuguese military units, a crisis situation that may be caused by weaknesses in the supply chain or the consequence of bioterrorist actions, requiring fast response (LOPES-JOÃO et al., 2019).

A few years ago, the Brazilian Army regulated its Chemical, Biological, Radiological and Nuclear Defense System (SisDQBRNEx), aiming to ensure, among other aspects, continuous staff training and the performance of interagency operations (BRASIL, 2012).

Regarding the health area, SisDQBRNEx foresees several assignments to the Health Administration and IBEx, such as providing health advice and technical support to the operational tasks of the CBRN Defense Military Organizations, managing health staff and specialized hospital facilities in CBRN Defense, conducting research in the area of biosafety, also with the collaboration of other national or foreign Forces, and, finally, operating a reference BSL-3 laboratory for the identification of biological agents (BRASIL, 2012).

To start the doctrinal reformulation of the CBRN Defense manuals of the Brazilian Army, the collective technical note developed for the 2016 Olympic Games by the Ministry of Defense, the Ministry of Science, Technology and Innovation, and the Ministry of Health, in addition to the collective health manual in CBRN Defense of the U.S. Armed Forces could be adopted to address military veterinary activities in CBRN Defense, such as training of veterinary personnel to work in the CBRN environment; monitoring of responsibility for physical structure and subsistence protection in CBRN environments; maintenance of assigned CBRN equipment; inspection of subsistence in CBRN environments; monitoring of subsistence decontamination that had been contaminated with CBRN agents, military working dogs and other government-owned animals; treatment of working dogs and other GOAs that are CBRN victims; reporting of intelligence data through command channels; vector and pest control and waste and carcass management in CBRN environments; and guarantee of safety of veterinary equipment, supplies and personnel (PENHA-GONÇALVES et al., 2016; UNITED STATES, 2016; BRASIL, 2016b). Such activities, in general, are already performed in the routine of veterinary officers in an environment not contaminated by CBRN agent (BRASIL, 2017).

In view of so many possibilities of action and training of the veterinary corps of the Brazilian Army in CBRN Defense, besides the need to update its doctrine considering the growth of other similar Armed Forces, the military veterinarians at the most distinguished roles of the Brazilian Force should be supported by their superiors so that this Veterinary Service keeps up with modernization of military veterinary in CBRN Defense.

4   Conclusion

Given the above, the authors of this study conclude the following:

1. In the context of biological defense addressed in this study, Veterinary Medicine is inserted as an anchor point of knowledge about biological warfare

agents, many of which cause animal diseases. In addition, this science is certainly an important connection of possible interagency operations, required in crisis scenarios;

2. In addition, the Brazilian Army has in its organization actors in the health field with reasonably well-defined responsibilities for biological defense, which should be explored by professionals and structures related to veterinary medicine;

3. Based on the example the actions of military veterinary corps from other countries in a CBRN environment, the following duties of military veterinarians could be included in the Brazilian Army manuals: training of veterinary personnel to work in CBRN environments; monitoring of responsibilities for physical structure and subsistence protection in CBRN environments; maintenance of CBRN equipment; inspection of subsistence in CBRN environments; monitoring of subsistence decontamination that had been contaminated with CBRN agents, military working dogs and other government-owned animals; treatment of working dogs and other GOAs that are CBRN victims; reporting of intelligence data through command channels; vector and pest control and waste and carcass management in CBRN environments; and guarantee of safety of veterinary equipment, supplies and personnel;

4. In order to detail more specific activities such as decontamination and treatment of victims of CBRN military working dogs, in addition to decontamination of food affected by CBRN agents, future studies could be conducted to analyze other manuals available in this field of knowledge;

5. It is widely recognized that CBRN threats, especially biological ones, are not blocked by borders and the effectiveness of a response will depend on international cooperation. Therefore, among the expected perspectives, exchanges between Armed Forces, international institutions or agencies should be highlighted in order to enhance military veterinary capacity in the Brazilian CBRN Defense.

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ECEME

Nursing education in the military scope: an integrative review

La enseñanza de enfermería en el ámbito militar: revisión integrativa

Abstract: This study aimed to analyze the scientific productions on the process of nursing education in the military scope. This is an integrative literature review study performed between September 1st and 2nd, 2019, based on an electronic bibliographic survey in all databases from the Virtual Health Library. The thesauri were the following: Military Nursing; Teaching; Military Personnel; Nursing. Thematic categorization was performed for data analysis and interpretation. Four articles were selected and two categories were elaborated: Main forms of nursing education in the military scope and Use of active methodology in military nursing education. The use of traditional teaching techniques in the military scope is emphasized primarily, but the importance of breaking this paradigm with the use of active methodologies is highlighted. The number of studies focused on education in the military scope is small.

Keywords: Military Nursing. Military Personnel. Nursing. Teaching.

Resumen: Este estudio tuvo como objetivo analizar las producciones científicas relacionadas con el proceso de enseñar enfermería en el ámbito militar. Se trata de una revisión integrativa de la literatura, realizada entre los días 1 y 2 de septiembre del 2019, con base en una recopilación bibliográfica electrónica en todas las bases de datos contenidas en la Biblioteca Virtual en Salud (BVS). Los tesauros fueron Enfermería Militar (Military Nursing); Enseñanza (Teaching); Militares (Military Personnel); Enfermería (Nursing). Para el análisis e interpretación de los datos, se optó por la categorización temática. Como resultado, se seleccionaron cuatro artículos y se crearon dos categorías: Principales formas de enseñanza de enfermería en el ámbito militar y Uso de metodología activa en la enseñanza de enfermería militar. Así, se pone de manifiesto el uso prioritario de técnicas de enseñanza tradicionales en el ámbito militar y se resalta la importancia de romper este paradigma con el uso de metodologías activas. Se encontraron pocos estudios con foco en la enseñanza en el ámbito militar.

Palabras clave: Enfermería Militar. Militares. Enfermería. Enseñanza.

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Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 175-186, May/August 2020

175

1 Introduction

Teaching is the process through which learning is facilitated by another person, allowing students to experience situations that may change their concrete lives. This progress is primarily based on three components: someone who teaches and someone who learns, and something the former teaches to the latter. Learning is a manifest reflection of the student's experience in teaching the specific knowledge facilitated by the educator's instruction, and is based on certain tactics proposed by the expected training, contributing to the student's experience, especially of how to be in the world (BORDENAVE, 2014).

The banking model of education is thus criticized, as the educator only deposits the information in the student. Teaching is not just transferring knowledge but creating possibilities for its own production or construction. The educator must reinforce the student's critical capacity and curiosity,. These conditions imply or require the presence of educators and learners, who function as restless creators and instigators, and who are rigorously curious, humble, and persistent (FREIRE, 2018a).

Teaching involves external and internal aspects; external ones regard the teaching contents, whereas internal ones regard the mental and physical conditions of students for the assimilation of contents. Both are mutually related because on the one hand there is the subject to be incorporated by the student, and on the other there is a student to be "prepared" to incorporate the subject (SANTOS et al., 2018).

When it comes to nursing education in the military scope (navy, army, and aeronautics), it is important to differentiate the insertion forms of contents, as this implies the teaching methodology that will be used. Thus, an individual may join the military as a nursing technician or as a nurse and have only military activities/training in the armed forces; or they may join as a sailor and/or soldier and train to become a nursing technician; or they may improve their training with some graduate courses Professional Update Programs of the Military of Health, as offered in the navy, army, and aeronautics branches.

This study analyzes the teaching methodology used in the graduate courses of the navy, army, or aeronautics, or the teaching methodology in the navy specialization and improvement courses.

The focus of this study is on the nursing education in the military scope, either for the specialization/improvement of low-rank military personnel as nursing technicians – as it is done in the navy –, and for graduate education – as in the navy, army, and aeronautics.

Health training is usually based on the traditional methodology, hence the need for changes in military education, with the adoption of alternative pedagogical methods such as the problematization of reality, aiming at the training of active professionals who can intervene in their reality. In addition, the change is paradigmatic, with explicit needs to incorporate new technologies that address the completeness, diversity, globalization, and uncertainty of the daily lives of health professionals (MARQUES, 2018).

From this epistemological challenge, the importance of listening, discussing, and focusing on the students with the use of active methodologies is highlighted. When one imagines the military scope, rigidity immediately comes to mind; however, when observing the teaching process in this institution, one can comprehend that it considers the importance of flexibility in such process, given the importance of improving it with new methodologies and techniques – e.g., dynamic and dialectical movement between acting and thinking about actions.

The discussion and the active methodologies meet the propositions highlighted by Paulo Freire (2018a), especially in the context of dialogic teaching. This process helps student learning, as it allows them to construct knowledge based on their concepts and on the intermediation/improvement by the educator.

This study aims to analyze the scientific productions on the nursing education process in the military scope.

2   Methods

This is an integrative literature review, which followed eight stages: (1) elaboration of the study question; (2) literature search; (3) selection of articles; (4) data extraction; (5) methodological quality assessment; (6) data synthesis; (7) assessment of the quality of evidence; and (8) writing and publication of results (GALVÃO; PEREIRA, 2014). All these stages were performed to prepare this study, which pursued the following question: What are the forms of nursing education in the military?

The literature search was performed between September 1st and 2nd, 2019 from an electronic bibliographic survey in all databases contained in the Virtual Health Library (VHL): LILACS (Latin American and Caribbean Health Sciences Literature), IBECS (Spanish Bibliographic Index on Health Sciences), MEDLINE (International Literature on Health Sciences), Cochrane Library, and SciELO (Scientific Electronic Library Online). Thesauri were determined using DeCS (Health Sciences Descriptors) from the VHL Portal: Military Nursing; Teaching; Military Personnel; Nursing. The "AND" Boolean operator was used.

Inclusion criteria: all types of studies (experimental, quasi-experimental, observational, and review) that dealt with nursing education in the military; in Portuguese, English, and Spanish; and published between 2013 to 2018.

Exclusion criteria: reflection articles; reviews without clear and reproducible methods; studies containing only clinical trial records and/or integrative review summaries; studies with non-human populations.

Figure 1 presents a flowchart detailing the search steps for the study selection.

Figure 1 – Search steps for study selection, Niterói, 2019

Search in all VHL databases
Keywords: Military Nursing AND Teaching

393 articles

Removed due to language: 18 in Russian; 8 in French; 5 in German; 4 in Polish; 2 in Norwegian; 1 in Japanese; 1 in Korean; and 1 in Swedish

353 articles

Removed by timeline

64 articles

Total articles included after title and abstract reading: 4. 59 removed because they were not related to the theme of the study and 1 because it was a repeated article.
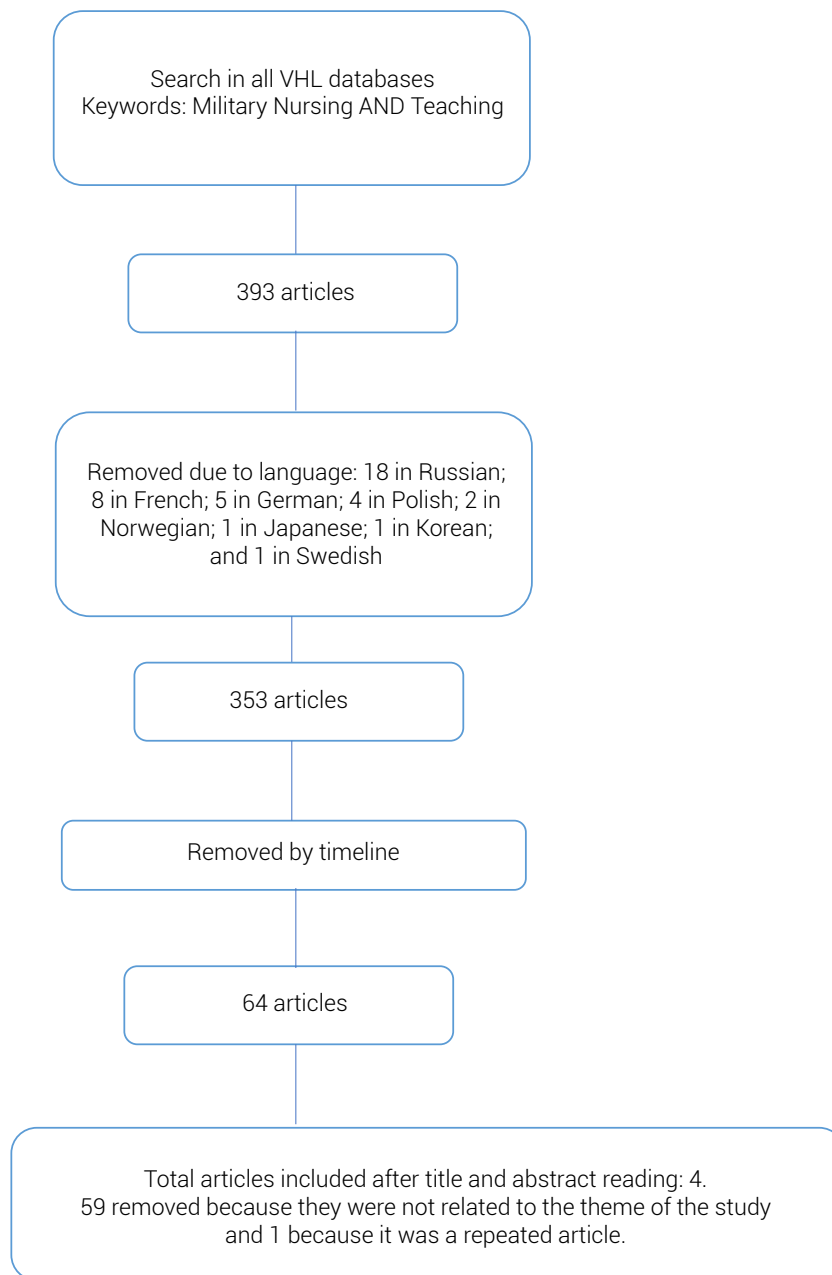
Source: elaborated by the authors (2019).

Four studies were included in the analysis. Search details: + id:("biblio-956600" OR "mdl-26050423" OR "mdl-27215868" OR "mdl-27863577" OR "mdl-26485844" OR "mdl-25315568" OR "mdl-24488872" OR "Mdl-24488873" OR "mdl-25073931" OR "mdl-25643502" OR "mdl-24005550") AND (collection:("06-national/BR" OR "05-specialized") OR db:("LILACS" OR "MEDLINE") AND (la:("en" OR "pt" OR "es") AND year_cluster:("2015" OR "2014" OR "2016" OR "2013" OR "2017"))

Details of the second search: teaching AND military AND nursing AND (collection:("06-national/BR" OR "05-specialized") OR db:("LILACS" OR "MEDLINE")) AND (la:("en" OR "pt" OR "es") AND year_cluster:("2015" OR "2016" OR "2013" OR "2014" OR "2017"))

Figure 1 – Search steps for study selection, Niterói, 2019
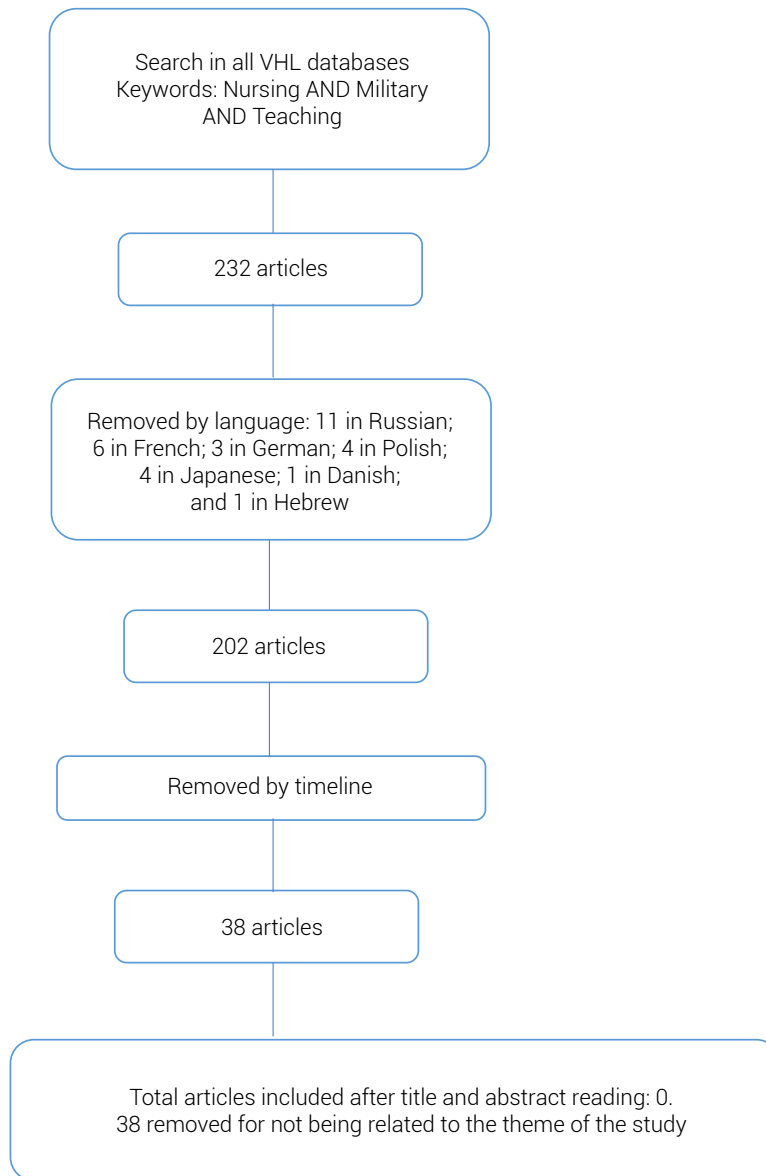
Source: elaborated by the authors (2019).

After the article selection, an analytical reading was performed highlighting: year of publication, country, journal, objective, method, and authors' recommendations. The presentation of obtained data results and their discussion was made descriptively. Thematic categorization was performed for data analysis and interpretation. Since few

Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 175-186, May/August 2020

179

studies addressed the topic of nursing education in the military, other studies were used to support the discussion of this article.

3   Results

Four articles were selected for discussion, which were published in 2013, 2015, 2016, and 2018. The 92 studies removed at the end of the study mainly addressed nursing actions in military operative activities, being removed due to not addressing education. Regarding the method used, a documentary search was performed in the Brazilian study. The three international studies (two from the United States and one from England) were one phenomenological study, one qualitative descriptive research, and one intervention study.

When considering the focus of our study – education within the military –, we found only one Brazilian study on teaching in the military .

Regarding the international studies, their objective was not teaching itself, but nursing professionals' care actions, evidence-based practice, and understanding of the actions of military nurses in disasters. These data are important because they show that few studies addressed the teaching issue in the military scope, and what is mainly addressed in these studies are operational issues for nurses during practice.

Moreover, three studies showed a qualitative approach and only one had a quantitative approach, showing the need for more quantitative research on military teaching.

Table 1 – Studies characterization from 2013 to 2018

Year/Country/Periodical	Objective/Method	Authors' Recommendations
2015/Brazil/ Revista da Escola de Enfermagem da USP (MECONE; FREITAS; BONINI, 2015)	To identify and analyze the discursive statements that describe the formation of HR in nursing, in the 1940s by the Brazilian Red Cross. The approach of the documentary sources was performed with the assumptions of the Historical Method, based on the thought of Michel Foucault.	This study highlights the docility techniques, the discipline, and the nursing training in order to produce an adequate study to fulfill the premises of prevailing interests, which served to open the public space for women. They could re-signify the common profession with mastery, given the associative, political, scientific, and legislative achievements obtained by them in the 1940s and thereafter.
2016/USA/Nursing Clinics of North America (YACKEL et al., 2016)	To understand the essence of the military nurses' experiences in disaster response. Phenomenological study.	The study found that while military nurses are expected to be strong and resilient during disaster response, their resilience declines. Nurses commented that emotional aspects can emerge and last longer in disaster situations. This new aspect has led to a greater appreciation of life.

Table 1 – Continuation

Year/Country/Periodical	Objective/Method	Authors' Recommendations
2018/England/Journal of Perioperative Practice (CARTER; FINNEGAN, 2018)	To explore the concept and developing role of military nursing teachers in improving educational support for military nurses. Qualitative descriptive study.	This study suggests the patient care improvement for military nurses through these professionals' mental and occupational resilience development.
2013/USA/Military Medicine	To implement and assess an evidence-based practice (EBP) program at two Army outpatient health centers. Intervention Research.	The authors emphasize that Evidence-Based Practice is necessary and effective to change the conduct of nursing practice, because it ensures better patient care.

The studies mainly addressed the issues regarding resilience aspects of professionals within the practice of nursing and the importance of evidence-based practice in the military scope. Therefore, to meet the objectives of this study. it was necessary to include other studies to corroborate the proposed theme.

4 Discussion

4.1 CATEGORY 1: Main forms of nursing education in the military scope

Nursing has gone through significant developments in scientific knowledge and training, at technological level, and in the philosophy of care. Such development was the result of sociocultural, political, economic, demographic, and epidemiological changes in contemporary societies. The socio-historical-cultural development of society leads to a constant need to recreate its professional action, by achieving a personal and professional heritage based on a separate competence dimension (PEREIRA, 2010). Quality education is crucial to this end, ensuring the development of skills and learning according to Brazil's National Curriculum Guidelines.

The pedagogical model that guided nursing education in the 1940s was marked by military prerogatives. Thus, it is interesting to observe that the pedagogical model of the time emphasized that knowledge was not built from the development of competences, namely teaching. Regardless of the knowledge area, the holder of knowledge (teacher or professor) reproduced the knowledge for the learner (student), thus characterizing a passive learning model.

We must stress that teaching is not merely transferring knowledge; the teaching process also involves the creation of possibilities for its production since teaching does not exist without learning and vice versa (FREIRE, 2018a).

The banking model of education is thus criticized because the educator only deposits the information in the student. Teaching is not just transferring knowledge but creating possibilities for its own production. The educator must reinforce the student's critical capacity and curiosity. And these conditions imply or require the presence of educators and learners, creators and instigators, who must be restless and rigorously curious, humble, and persistent (FREIRE, 2018a).

Thus, regarding the epistemological challenge, the authors understand the importance of listening and discussing students by using active methodologies. When one imagines military environments, rigidity comes to mind; however, teaching within military institutions recognizes the importance of flexibility in this process, given the importance of improving it with new methodologies and techniques, such as the dynamic and dialectical movement between acting and thinking about actions.

The discussion and the active methodologies meet the propositions highlighted by Paulo Freire (2018b), especially in the dialogical teaching context. This process helps student learning, as it builds their knowledge based on their concepts and the intermediation/improvement by the educator.

In the military scope, training courses have as their principles hierarchy, discipline, traditionalism, and conservatism, regardless if nursing or other careers (ROCHA, 2015), so the teaching process has been guided by lectures, internships, and tests, complicating the possible use of active methodologies. However, considering the importance of the development of ethical, technical, and scientific competences of nursing professionals, it is important to break this paradigm, therefore creating a professional trained with quality, who develops the necessary competences to ensure excellent patient care, especially when the issues involve military actions requiring professional resilience (RIVERS, 2016).

The assimilation of content taught is most effective when it is established that no individual should be treated as an empty container, and prior knowledge should be respected and explored. Thus, the single most important factor influencing learning is what the learner already knows. The idea of a subsumption element may be interesting if the student is considered motivated to seek information. Learning should be more stimulating, leading the student to a state of motivation. Thus, when the educator shows the learner some triggering elements that communicate with the student's subsumption elements from the cognitive process, the students can create important connections that may fill their knowledge gaps. Thus, the curriculum contents must communicate with the student's reality. Furthermore, a stimulating learning environment can add value to the educational practices. It is in this context the active methodologies are justified, with the added benefit of favoring the student's autonomy (FARIAS; MARTIN; CRISTO, 2015).

4.2 CATEGORY 2: Use of active methodology in military nursing education

Among the elements that constitute the active methodologies, two actors should be conceptually considered: the teacher/professor, who no longer has the function of

articulating or teaching, but now has the task of facilitating the knowledge acquisition process; and the learner, who receives denominations that refer to the dynamic context, such as student or pupil. All this to highlight the active, dynamic, and constructive environment that can positively influence the educators' and learners' perception. Some active methodologies require investment and radical curriculum reform, representing a difficulty in applying them (FARIAS; MARTIN; CRISTO, 2015).

In the military scope, no studies that used active methodologies in the teaching process were found. Thus, as a possibility of change, the use of active methodologies is highlighted in the military scope, based on the many education active methods, emphasizing the actions (COSTA et al., 2011):

- Constructivists – based on meaningful learning;
- Collaborative – favoring the construction of group knowledge;
- Interdisciplinary – providing integrated activities to other disciplines;
- Contextualized – allowing the student to understand the application of this knowledge in reality;
- Reflective – strengthening the ethics principles and moral values;
- Critical – encouraging the student to seek deepening in order to understand the limitations of the information that come to them;
- Investigative – arousing curiosity and autonomy, allowing the student the opportunity to learn how to learn;
- Humanists – concerned and integrated into the social context;
- Motivating – working and valuing the emotion;
- Challenging – encouraging the student to search for solutions.

Thus, it is noteworthy that the use of active methodologies can lead the learner to this new context, in which education is shaped without being plastered. The freedom supported by the educators of these models – which are feared by those who apply traditional models, as in the case of military personnel – may be the solution to develop the student's autonomy and train a creative, reflective, and independent professional, essential characteristics for the training of nursing professionals (FARIAS; MARTIN; CRISTO, 2015).

One of the limitations of this study is that no studies addressing the use of active methodologies in nursing education in the military scope were found, highlighting the knowledge gap in military education, which remains traditional and conservative.

Contributions to nursing and health include the synthesis of articles on military nursing education and the importance of the development of teaching practices with the use of active methodologies in the military scope, since there are no studies addressing this issue. Regarding the effectiveness of the active methodologies in teaching, it is important to encourage the use of these practices, especially in the training of military nurses. This ensures a qualified professional, who is ready for the necessary critical-reflective analyses for nursing practices.

5 Conclusion

By analyzing academic productions on education in the military scope, this study achieved its purpose, understanding how this process happens, as well as determining there is little evidence about this theme. Thus, this study may promote the production of new studies, which may highlight the actions and the use of active military methodologies to improve the teaching-learning process in this environment.

It is highlighted that military principles should always be followed, as they guarantee order and discipline in the country. But when teaching is analyzed, the traditionalism paradigm must be broken, promoting changes to stimulate students and ensure a more effective training. When the student's prior knowledge and considered, the process of meaningful learning is facilitated and ensured.

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Winning in multi-domains is not enough: thoughts on the new doctrine and the gray zone conflicts

No basta con vencer en múltiples dominios: conjeturas sobre la nueva doctrina del Ejército de los Estados Unidos y los conflictos en la zona gris

Abstract: This article offers a brief analysis of the new challenges imposed on the U.S. Armed Forces to facing enemies with similar combat power. An orthodox approach to the new Army doctrine called Multi-Domain Operations (MDO) might contribute to political and strategic failure while ensuring tactical victories in the battlefield.

Keywords: Multi-domain Operations. Grey zone. Hybrid Warfare.

Resumen: El presente artículo ofrece un breve análisis de los nuevos desafíos impuestos a las fuerzas armadas de los EUA, ante enemigos dotados de poderío bélico análogo. Un enfoque ortodoxo de la nueva doctrina del Ejército norteamericano, denominada Operaciones en Múltiples Dominios, puede contribuir para el fracaso en los niveles político y estratégico, aunque les asegure la victoria táctica en el campo de batalla.

Palabras clave: Operaciones en múltiples dominios. Conflicto en la zona gris. Guerra Híbrida.

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Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 187-210, May/August 2020

187

After the long, arduous and, apparently, fruitless Global War on Terrorism, the United States Army (USA) is engaged in a legitimate effort to regenerate and expand the capacities related to large-scale ground combat[1]. The emerging doctrine, called "Multiple Domain Operations," is the theoretical tool with which the Army intends to equip sophisticated and interdependent joint maneuvers, in order to overcome threats with warlike power equivalent or almost equivalent.

While the Army is genuinely engaged in the search for solutions to the battle, especially at the tactical and operational levels, it is necessary to reflect on its interface with American national strategy and policy. Although doctrine is not a strategy, there is an undeniable relationship between them. A clear alignment must be built now and not after the full development of capacities based on Multiple Domain Operations or any other concept, otherwise there will be irreparable inconsistencies. In other words, the question should not remain limited to *"how will the Army win the next battle."* The heart of the problem is *"how the nation will win the next war."* The study of US military history, more than any other country, proves that, despite the ingrained Clausewitzian logic, one thing does not necessarily lead to the other.

The latest edition of the *FM 3-0 Operations* manual wisely recognizes that an offensive based on conventional military might, however successful it may be, does not represent the decisive act of a military campaign. After all, tactical success wins battles, but it is not enough to win wars (UNITED STATES, 2017a, p. 1-39, 7-58). The very idea implied in the expression "winning the war" goes far beyond the mere imposition of national will on a militarily subjugated enemy. In this sense, it is worth recalling the statement made by General Willian Sherman, for whom "the legitimate objective of war is perfect peace" (FULLER, 1966, p. 100).

The United States undoubtedly needs to be prepared to win an eventual attrition battle waged by large-scale regular forces. However, American military leaders must assess whether the desired solutions at the operational and tactical levels will expand or reduce

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1   Despite the virtual destruction of Al Qaeda and the remarkable proficiency displayed by the US armed forces on the battlefields of the Middle East and Central Asia, the immediate results of the Global War on Terrorism were unsatisfactory and its costs were exorbitant. Furthermore, from a political and strategic point of view, both campaigns, in Iraq and Afghanistan, represented a real disaster. According to John Arquilla (2018), in 2001, there were about 2,000 incidents that could be qualified as terrorist attacks worldwide. These actions left a balance of approximately 14,000 dead and injured. In 2015, the statistics suggested a significant worsening in the global security situation: the total number of attacks reached 15,000 and the number of victims reached the figure of 80,000 people. In fact, US-led military initiatives in response to the 9/11 terrorist attacks have destabilized and conflicted the entire volatile Middle East, with the naive presumption of spreading Western democracy. The popular uprisings of the so-called Arab Spring soon degenerated into a fratricidal struggle promoting the outbreak of civil wars in some countries. Waves of refugees, stemming from the conflicts in Libya and Syria, flooded Turkey, Lebanon, Jordan and, to a lesser extent, Europe. In addition to revealing the humanitarian tragedy, the migratory flow to Europe has caused a huge demographic, cultural, political and economic impact, whose consequences cannot be correctly assessed so far. Furthermore, the imbroglio created by the ephemeral rise of the Islamic State and the survival of the battered regime of the dictator Bashar al-Assad, in Damascus, allowed the reintegration of Russia as a prominent actor in the region, in addition to providing significant advantages to Moscow, such as the lease from the port of Tartus, in the Mediterranean Sea, for the next 48 years (something surprising even for the ambitions of Tsar Peter the Great). To the perplexity of the Americans, Russia's gains in Syria required an incredibly low resource commitment. As if that were not enough, the US's main rival in the Middle East, Iran, has become the largest beneficiary of the wars in Afghanistan and Iraq. After all, what was achieved in fact with both interventions was the deposition of radical anti-Shiite autocracies in Kabul and Baghdad, restoring the historic area of influence of the Persian Empire. Consequently, actors that were antagonistic to the USA began to exert greater influence over the Persian Gulf, the Gulf of Aden, the south of the Red Sea and the eastern Mediterranean, contrary to the Carter Doctrine, whose premise is to mitigate the risks to oil supplies from the Middle East.

flexibility at the political and strategic levels, preserving the link between ends and means – skills that their potential enemies have displayed with remarkable proficiency.

When Edward Wynkoop or John Paul Vann made plausible criticisms of the use of the "American Way of War," for example, it was too late for the Army to resort to less orthodox strategies, as they simply did not exist[2]. Therefore, this article offers a brief analysis of the challenges that the historical context and the current strategic environment impose on the most powerful armed forces on the planet, as they prepare themselves to primarily face enemies with equated combat power. It should be noted that this text contains excerpts from other works previously published by the author, as shown in the bibliographic references.

1 Change of Era

The world has always been in constant transformation, driven by the creative genius of human beings. The domain of fire, the Neolithic Revolution, the advent of writing and the wheel, the emergence of bronze metallurgy, the unrestrained advances in science and the creation of sophisticated political and social institutions, for example, demonstrate that great changes are inherent in the history of humanity (VISACRO, 2019a, p. 49).

However, about 200 years ago, with the beginning of the Industrial Revolution, societies began to experience changes at a pace, whose intensity, speed, breadth and depth have challenged the adaptive capacity of even the most elaborate human groupings. Not by chance, the epicenter of these changes, Europe, almost found its own destruction, in the first half of the 20th century, with two world wars, political chaos, disintegration of empires, revolutions, nationalist conflicts, ethnic tensions, dissemination of radical ideologies, rise of totalitarian regimes, genocides, prolonged economic crisis, epidemic and hunger (KERSHAW, 2016, p. 19-25).

As Michael Phillips (2009, p. 95) warned, "our greatest hazard is not the changing global environment, but our reaction to it." "After all, human collectives incur natural (and sometimes disastrous) mistakes when interpreting the transformations that affect the basic principles that rule the organization and functioning of society, demanding, on some occasions, an excessive time to readjust to new contexts" (VISACRO, 2019a, p. 49). When postulating that knowledge became the main factor of production in the 21st century, overcoming in importance the availability of land, capital, labor, energy and raw materials together, Professor Marcos Cavalcanti, from the Federal University of Rio de Janeiro, assured that "We do not live today in an era of change [...] On the contrary, we are experiencing an authentic change of era, which is something completely different "(CAVALCANTI, 2009, n.p.). In fact, the use of the term "era of change" suggests a *continuum* of transformations over which

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2   Edward W. Wynkoop (1836-1891) served as an army officer and head of the Cheyenne and Arapaho Agency during the Indian Wars, opposing the annihilation campaigns launched against non-hostile tribes. Lieutenant colonel John Paul Vann (1924-1972) became famous for his criticism of American strategy during the Vietnam War.

we can exercise a degree of control. On the other hand, the expression "change of era" presupposes a paradigmatic rupture that affects the foundations of society, making models and standards obsolete.

Before being a political phenomenon in the Clausewitz's strict sense, war is a social phenomenon. "Despite all the protagonism attributed to soldiers on the battlefield, it is the societies, and not the armies or their generals, that produce the wars. This assertion allows us to conclude that changes in the conduct of war result primarily from sociological changes. The moment humanity leaves the industrial era to enter a new one, undergoing rapid and profound changes, it is necessary to seek to understand, objectively, how these changes affect the nature of armed conflicts" (VISACRO, 2018, p 25-27).

The rapid incorporation of technological innovations, in addition to being clearly perceptible, is inevitable, crucial and urgent. Autonomous weapon systems, artificial intelligence and quantum computing, for example, are expected to have a significant impact on the very nature of war. However, the complex demands of the 21st century are not restricted to the mere acquisition of new disruptive technologies. The risks of using outdated models to manage new resources and interpret new dynamics are enormous. According to Peter Drucker (1980, n.p.), "the greatest danger in turbulent times is not turbulence itself, but acting with the logic of the past." The sequence of events that led to the outbreak of the First World War in 1914 illustrates this. "World leaders, in particular, should always keep this in mind, in order to avoid that an unnecessary succession of mistakes, justified by the intensification of global competition, may once again define the course of history" (VISACRO, 2019a, p. 51).

Furthermore, the fascination exerted by the "steel shock in the decisive battle," still significantly affects the judgment about the use of force. Episodes such as Gettysburg (1863), Sadowa (1866), Sedan (1870), Tsushima (1905), Tannenberg (1914), Midway (1942), El Alamein (1942), Guadalcanal (1943), Stalingrad (1943) or Golan (1973), for example, constitute archetypes that support orthodox thinking. Although traditional forms of belligerence cannot be dismissed or neglected, they must be considered within a new and broader context. After all, new strategic approaches and social dynamics have relativized the use of the military instrument.

2 In Search of Alternatives to Challenge North American Hegemony

National states, as political entities, still compete fiercely with each other, guided by the traditional *raison d'état* and by the realistic precepts of the Hans Morgenthau school (BITTENCOURT, 2017, p. 4). "However, they have diversified their ways of coping and sought to reduce the visibility of their strategic actions, in the face of an increasingly intolerant and impatient public opinion, less willing to bear the costs of a total war" (VISACRO, 2018, p. 167). Although the principles of political realism outlined by Morgenthau in his most famous work, *Politics among nations*, remain valid, the resources and alternatives with which States pursue their interests seem to have expanded.

In particular, Russia, China and Iran have been developing less orthodox strategies in order to counter American military hegemony. Spectators of the surprising

display of warlike power during the 1991 Gulf War, these countries became convinced that the United States had become virtually unbeatable on a conventional battlefield. No other armed force on the planet could confront them, venturing into a direct pitched struggle, conducted in accordance with the "paradigm of industrial war between states" (SMITH, 2008, p. 49-139).

Years later, in February 1999, two Chinese Air Force officers, Qiao Liang and Wang Xiangsui, published a book that would become famous, entitled "The War Beyond the Limits: conjectures about war and tactics in the age of globalization." The work proposed actions and procedures that went beyond the usual military tactics, aiming to compensate for the military inferiority of emerging countries, such as China in particular, in the event of a conflict involving high-tech means. According to the authors:

> The war as we knew it, described in glorious and dominant terms, until the conclusion of the recent conflict, marking a peak in military history, ceased to be considered one of the most important events on the world stage, and became the importance of a secondary actor. [...] The point is that multinational forces led by the United States, operating in the desert region of Kuwait, marked the end of a period, thus ushering in a new era. [...] All of this is still undetermined. The only certain conclusion is that, from now on, the war will no longer be as it has always been. [...] The war, which has undergone changes in modern technology and the market system, will be unleashed in even more unusual ways. In other words, while witnessing a relative reduction in military violence, we are definitely showing an increase in political, economic and technological violence (LIANG; XIANGSUI, 1999, p. 4-6).

The current Chief of Staff of Russia, General Valery Gerasimov, has repeatedly mentioned the adoption of more eclectic strategies, not based exclusively on the use of conventional warlike power (VISACRO, 2019c, p. 21). Interestingly, he draws on his personal interpretation of US diplomatic, informational, military and economic tools to support his case. The tone of his ideas has shaped what analysts call the "Gerasimov Doctrine" or, to paraphrase the general himself, the Russian "New Generation War":

> The emphasis in the content of methods of confrontation is shifting in the direction of extensive employment of political, economic, diplomatic, information, and other nonmilitary measures, implemented with the involvement of the protest potential of a population. Nonmilitary forms and means of struggle have received unprecedented development and have acquired a dangerous, sometimes violent nature. (GERASIMOV, 2017, p. 25).

> In addition, the make-up of participants in military conflicts is broadening. Together with regular forces, the internal protest potential of the population is

Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 187-210, May/August 2020

191

being used, as are terrorist and extremist formations [...] There has been a shift from sequential and concentrated operations to continuous and dispersed operations conducted simultaneously in all spheres of confrontation and in remote theaters of military operations (GERASIMOV, 2019, p. 132).

In this way, the new strategies outlined by the governments of Moscow, Beijing and Tehran, over the past few decades, have been subordinated to three premises, namely:

I. A direct strike against the armed forces of the United States would be extremely disadvantageous and risky, therefore, it should be avoided;

II. Other means, other than traditional military alternatives, should be employed to achieve national goals; this would mean placing greater emphasis on political, diplomatic, geoeconomic and informational actions, to the detriment of actions in the military field, as well as developing other indirect methods of engagement, such as, for example, unconventional warfare, information operations and cyber warfare; and

III. To have conventional warlike power that, although it was not enough to assure them a definitive military victory over the United States, would alter the cost-benefit of an eventual North American intervention, making it disadvantageous, in order to create a strategic impasse from which could take advantage, exploring the ambiguities and contradictions of the international system (VISACRO, 2019c, p. 22).

Since then, the political and strategic options outlined by Russia, China and Iran have developed, in general lines, according to the following logical sequence:

1st) **"Aggressive" use of non-military means, supported by non-kinetic (non-lethal) military alternatives, especially information operations and cyber war.** This allows them to shape the environment in their favor, progressively reducing the United States' influence and interference power in a given geographical area, while ensuring that they expand their own presence at the regional level. The geoeconomic initiatives undertaken by the Chinese in Africa and Latin America serve as an example, as well as the Russian information campaigns in Europe and the political actions carried out by Tehran with the Shiite leaders in Afghanistan, Iraq, Syria and Lebanon (VISACRO, 2019c, p. 22).

2nd) **Employment of military means to achieve strategic objectives, without however provoking an American intervention.** This means admitting a violent escalation of the conflict to a limit that precedes decisive action by the Washington government. In this phase, it is possible to observe the limited use of conventional forces, combined with the skillful use of diplomatic and informational tools, in addition to unconventional war practices, above all, the intense use of *proxies*, as the Russians have done, sponsoring separatists in the eastern Ukraine or through Shiite militias and the *Wagner Group*, a private military company serving the Kremlin, in the Syrian civil war (ARANHA, 2018)

As well as Iran through *Hezbollah*; and China promoting paramilitary activities on the Senkaku Islands (MORRIS et al., 2019, p. 95), for example. Lastly:

> 3rd) **Possible use of anti-access and area denial capabilities** (A2-AD, of the acronym in English), using sophisticated air, naval and anti-missile defense means, including anti-satellite weapons, supported by information operations, cyber activities and electronic warfare in order to restrict the entry of US forces into the theater of operations (VISACRO, 2019c, p. 22).

As the establishment of robust Chinese military bases on artificial reefs suggests in the area delimited by the "Line of Nine Traits" in the South China Sea (ARQUILLA, 2018, p. 118), in addition to the test, carried out in 2007, which resulted in the destruction of a Chinese meteorological satellite by a kinetic attack missile launched from the Earth's surface (DESCHENES, 2019, p. 110).

According to General Joseph Dunford: Russia, China and Iran employ "economic coercion, political influence, unconventional warfare information ops, [and] cyber ops to advance their interests and they do it in a way that they know we don't have an effective response. They, unlike us, are able to integrate the full range of capabilities their states possess to advance their interests" (MORRIS et al., 2019, p. 2).

In face of this reality, the concepts of *Hybrid Warfare* and *Conflict in the Grey Zone* have received great prominence in the specialized literature[3]. According to an analysis by the US Army Training and Doctrine Command (TRADOC):

> Irregular operations, often in concert with proxies, terrorist, or criminal activities, operating within a "Gray Zone" short of war, will challenge our ability to come to grips with the enemy and perhaps present an unfavorable cost-benefit equation to our political leaders [...] State and non-state actors compete for power and control, often below the threshold of traditional armed conflict – or shield and protect their activities under the aegis of escalatory WMD, cyber, or long-range [fires] conventional options and doctrines (UNITED STATES. 2017b, p. 5, 13).

Numerous official documents, such as *"The US Army in Multi-Domain Operations 2028 "*prepared by TRADOC in 2018, clearly describe the operational context (UNITED STATES, 2018). The *FM 3-0 Operations* campaign manual recognizes that opponents in the United States prefer to achieve their goals without directly engaging

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3   According to Colonel Paulo Cesar Leal (2010, p. 10), of the Brazilian Army, hybrid warfare uses a wide range of resources, combining conventional and unconventional warfare tools, namely: regular and irregular forces, special forces, support to local demonstrations, information warfare, diplomacy, cyber attacks and economic warfare. According to Hal Brands (apud ARQUILLA, 2018, p. 121), the conflict in the grey zone "[...] is coercive and aggressive in nature, but that is deliberately designed to remain below the threshold of conventional military conflict." In other words, "the Gray Zone is characterized by intense political, economic, informa-tional, and military competition more fervent in nature than normal steady-state diplomacy, yet short of conventional war" (VOTEL et al., 2016, p. 102).

their forces in combat. And it goes further: opposing forces portray enemies equipped with modern technology to generate combinations of conventional, irregular and disruptive threats in each of the five domains and in the informational environment (UNITED STATES, 2017a, p. 1-9, 2-54, 3-4).

The alternative strategic approaches, developed by the powers that challenge the American hegemony, have allowed them to move towards the achievement of their national objectives, while significant investments are directed to their respective military forces, aiming to generate a gradual increase in conventional warlike power. China, for example, expanded defense spending by 665% in the period between 1996 and 2017 (HEGINBOTHAM; SAMUELS, 2018); in the first half of 2019 alone, 16 new warships were launched into the sea and its navy is already the largest in the world in number of vessels (GALANTE, 2019). However, in view of the good results obtained, it seems unlikely that, in the near future, these heterodox methods will simply be abandoned to promote an obtuse return to traditional forms of direct confrontation. Perhaps, General Rocha Paiva, of the Brazilian Army, is correct in paraphrasing Clausewitz in a personal message to this author, dated August 29, 2019: *"peace has become the continuation of war by other means."*

3 A New Dynamics Leads to the Stiffening of Strategic Competition

In addition to the impact of disruptive technologies, humanity faces an unprecedented flow of people, ideas, services, goods and capital. Changes in migratory patterns, demographic pressures, uncontrolled urbanization and environmental degradation are added to political changes, global economic transformations and, above all, profound changes in expectations, values and social norms (NAÍM, 2013, p. 33). Hyperconnectivity and interdependence impose logic of convergence and hybridization (MATFESS; MIKLAUCIC, 2016, p. X), leading to a redefinition of what we understood as *time, distance and power*. Amid the crisis of legitimacy of representative democracy (HOBSBAWN, 2007, p. 97-115), new challenges to the traditional Westphalian order arise, such as the rise of non-state actors and endemic government bankruptcy, for example. The increasingly common overlap of "hot spots" and "black spots"[4] suggests the advent of a Neo-feudal order in some important geographic areas around the planet.

State and non-state actors act frantically, showing increasing autonomy. However, they remain closely connected to form hybrid threats that permeate complex adaptive systems. There is an enormous multiplicity of means (military and non-military) employed in conducting the war, where actions in the political, economic and psychosocial fields overlap with efforts in the military field. It is also noteworthy the ascendancy of the human and, mainly, informational dimensions about the traditional confrontation in the physical domain. This scenario requires the adoption of a multi-component strategy (MORRIS et al., 2019, p. XVIII), in addition to a systemic and multidimensional conception of security, which transcends the ingrained Westphalian paradigm of national defense *stricto sensu* (figure 1).

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4   Usually, the conflagrated areas are known as "hot spots." Bartosz Hieronim Stanislawski coined the term "black spot" to designate ungoverned areas within a State, capable of generating and spreading insecurity (SOUZA, 2012).

Figure 1 – Conflict in the Grey Zone
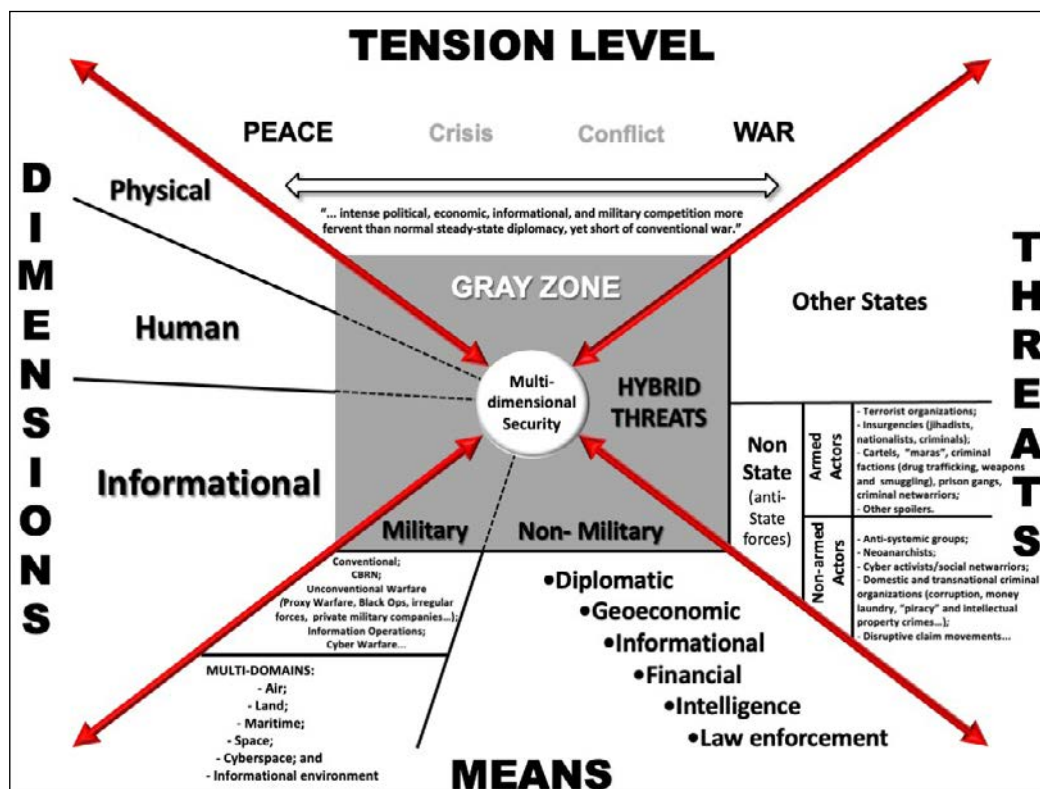
Source: Visacro (2019b, p. 59).

In the face of such facts, we must admit that hybrid war and conflict in the gray zone, perhaps, are not merely mere strategic options within the reach of US opponents. In fact, it is a natural consequence of the 21st century conflict environment. An analysis recently prepared by the *RAND Corporation* emphasizes that "the first and most important strategic principle [that should guide the North American stance] is that the *United States should not merely seek to mitigate losses in the gray zone but also aim to gain strategic advantage* [in this type of environment]" (MORRIS et al., 2019, p. 130).

According to John Troxell (2018, p. 6), "information warfare, cyberwarfare, and international economic competition are not necessarily new approaches or methods for states to pursue national security objectives, but the context in which they are being applied and the prominence that they have assumed is significantly new" What we have, in fact, is the traditional exercise of *the* realpolitik with a more diversified portfolio of means and, perhaps, with fewer moral ties. Geopolitical disputes between sovereign states have always been compared to a game of chess. However, there seem to be new rules in a globalized world and deeply affected by the digital revolution, in which distances and time have been virtually abolished (HOBSBAWN, 2007, p. 37) and power has been significantly degraded (NAÍM, 2013). Let us imagine, then, a board that holds more than two opponents at the same time. Some pieces are autonomous, have a will of their own, moving independently. The game profile of the pieces undergoes changes

during the game – the rook advances diagonally like a bishop, and a pawn moves backwards by several squares! Players are free to move around without respecting the time allotted to other opponents. Possibly, this analogy more appropriately portrays the complex challenges of the 21st century (VISACRO, 2019c, p. 23).

However, it is worth remembering that the Chinese strategy game is Go (or *Wei-Chi*) and not chess – of Persian origin. This subtle difference may hide quite different strategic conceptions between Clausewitz's West and Sun Tzu's East. According to Major Jamie Schwandt, of the United States Army: "In chess, the underlying philosophy is winning through decisive victory with a clear objective in capturing the enemy king and destroying enemy forces. Chess is a linear game with a simple center of gravity (COG)— the king. We initiate a game of chess with all the pieces on the board, seeking then to move forward linearly in a war of attrition." (SCHWANDT, 2018, p. 21). In Go, the victory depends on the accumulation of pieces that leads to the board control, that is, the game acquires a constructive character. A chess game, on the other hand, reproduces an eminently destructive strategic-military process, supported by the elimination of the opponent's pieces and alternatives (MCNEILLY, 2003, p. 37).

While its opponents are guided by amoral realism, US diplomacy combines the defense of national interests with the promotion of values and ideas that American society understands as universal (KISSINGER, 2012, p. 13). Not infrequently, when the Washington government tries to reconcile real politics and the balance of power with the protection of these values, it finds itself stuck in its own contradictions, creating ambiguities that its opponents know how to exploit with mastery, above all, in the human and informational dimensions. Washington's insistence on using the military instrument to pursue unattainable political goals explains much of the setbacks suffered by the United States, despite the remarkable proficiency of its armed forces on the battlefield. On the other hand, soldiers almost always attribute the causes of failure in war only to wrong political decisions and failures in strategic planning, without admitting their own ineptitude in the face of any conflict that is not in full conformity with the model of industrial war between states (figure 2).

Figure 2 – Alignment and Gap – For didactic purposes, this illustration implies the operational level as the theater of operations strategy.
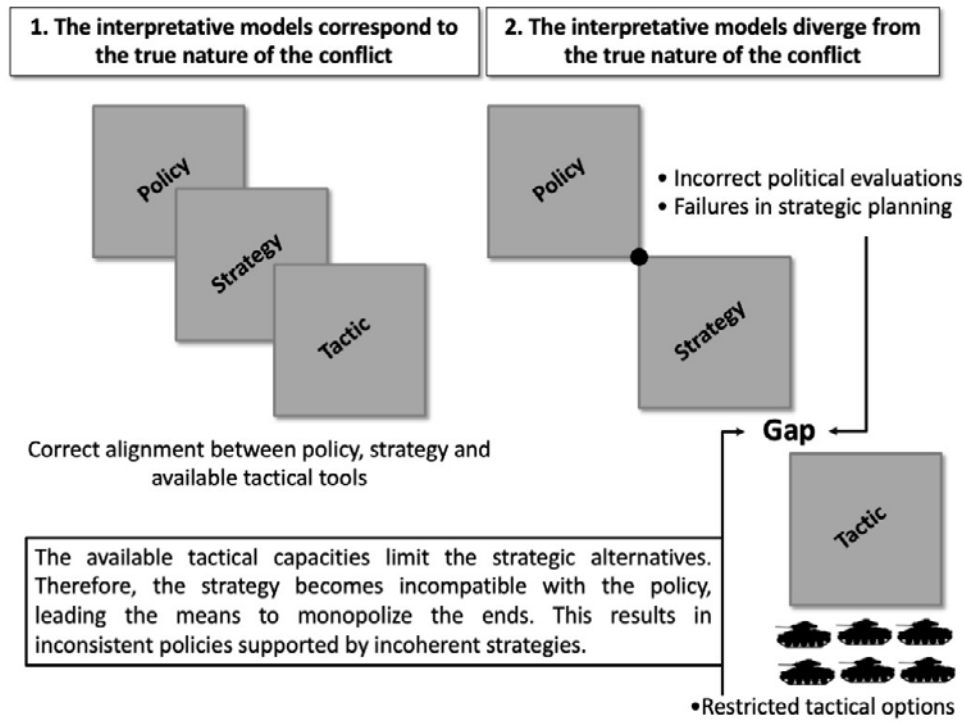
Source: the author (2020).

The fact that Russia, China and Iran defy American hegemony portrays a multipolar dynamic very close to the scenario predicted by Samuel Huntington (1998) in his controversial work "The Clash of Civilizations and the Remaking of World Order" (VISACRO, 2019c, p. 18). Managing this dynamic does not necessarily mean promoting the intensification of strategic competition in an inconsequential way. The obsession with points of attrition and points of divergence can eclipse the many opportunities for distension, in addition to inducing opponents to cooperate with each other (TRENIN, 2019).

According to political scientist Graham Allison, in the past 500 years, an emerging power has defied the dominant power's *status quo* 16 times. In 12 cases, the dispute resulted in armed conflict – almost always triggered by a secondary event, associated with a minor actor, such as the murder of Austrian archduke Francis Ferdinand in 1914, for example (ALLISON, 2018). Thus, the "Thucydides trap" cannot be ignored in the current geopolitical context, especially if we consider that the decline in American hegemony is accompanied by a significant increase in the number of "proxy wars," renewed emphasis on conventional warlike power and increasingly daring initiatives in the "gray zone" that precedes a formal confrontation between states.

Having armed forces with significant deterrent power remains essential, but it is not enough. The military instrument must also be able to offer more flexible alternatives, which support the achievement of national political objectives, while promoting an

escalation of the conflict. In this sense, the special operation forces, the US security force assistance brigades and the 6th "hybrid war" division of the United Kingdom, for example, can prove to be quite useful (SENGUPTA, 2019).

4 Hegemonic Power Paradox

It is expected that the next combats will be marked by engagements in Earth's orbit, hypersonic speed and fires of greater range, precision and lethality. The fight will be fought, simultaneously, by state and non-state actors, in international waters, in the cyber domain and in megacities, where hordes of young people and children, confined in densely populated segregated spaces, will be co-opted by abject violence practices, in an environment chaos, anomie and barbarism. Irregular forces, mercenaries and autonomous military robots, in the midst of innocent civilians, will take part in the next battles, to the detriment of the huge contingents of "citizen soldiers" that were legacies of the French Revolution and that characterized the main wars of the 20th century.

US military forces are likely to be required to play an important strategic role in the phases leading up to the outbreak of total war or in the post-conflict period. Certainly, sophisticated skills will be required in multiple domains contested by opponents with comparable war power. But, very rarely, they will engage in a full-scale conventional combat in all its fullness, as advocated by Clausewitz's most orthodox disciples (VISACRO, 2019c, p. 23). See Figure 3:

Figure 3 – Relationship between the Army's strategic roles and the joint phases.
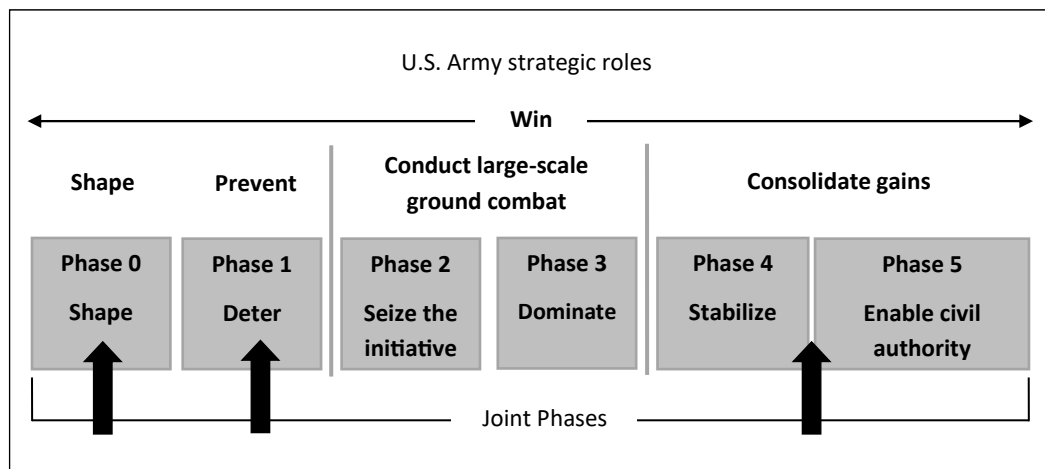
Arrows indicate the highest probability of using US forces
Source: Adapted from United States (2017a).

According to David Kilcullen (2013, p. 103):

> [...] state-on-state conflict has always been relatively rare, and is getting rarer. At the same time, irregular warfare has historically been and will probably continue to be the main form of organized violence across the planet [...]. In Iraq and Afghanistan wind down would only reinforce this tendency, since America`s unprecedent military supremacy means that no enemy in its right mind would choose to fight United Sates conventionally, and this pushes all potential adversaries – state or nonstate – in the direction of irregular methods [...]. In particular, governments that acquire nuclear weapons, which will allow them to deter conventional attacks, may be emboldened to use proxy warfare against an opponent.

The significant increase in irregular conflicts, in the decades that followed the end of World War 2, supports Kilcullen's statement. As a result of the frantic arms race between NATO forces and the Warsaw Pact, a strategic impasse was reached, defined according to the theory of "Mutual Assured Destruction" – suggestively known by the acronym MAD. In other words, the balance of the vast atomic arsenals of both superpowers, the USA and the Soviet Union, raised the risks of a direct confrontation in Europe to simply unacceptable levels, making the Third World the real battlefield of the Cold War, as shown in figure 4 (VISACRO, 2009, p. 23-25).

Figure 4 – Nature of armed conflicts between 1946 and 2017.
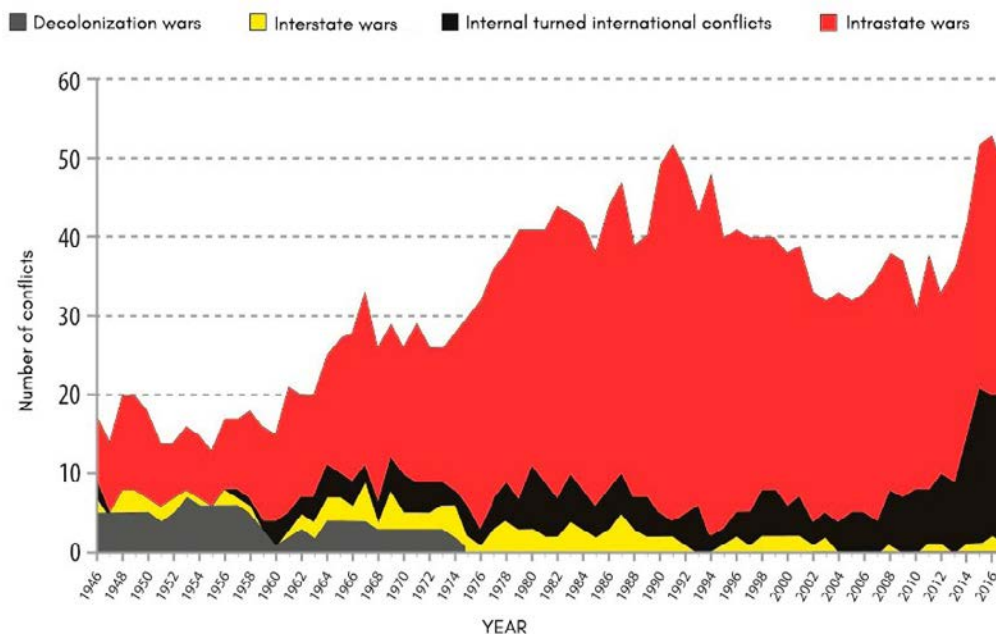
Source: Pettersson and Eck (2018).

Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 187-210, May/August 2020

199

According to General Álvaro de Souza Pinheiro (2008, n.p.), of the Brazilian Army, "the probability of more intense conflicts between developed national states is significantly decreasing; even if the realistic possibility of the outbreak of armed confrontations between state actors is accepted, they are more likely to employ asymmetric methods of war." In an article for the *Washington Post*, columnist Max Boot was even more emphatic, assuring that the United States is simply preparing to fight the wrong war (BOOT, 2018).

In fact, American soldiers find themselves trapped in a paradox, which we could call the "hegemonic power paradox." That is, the United States is obliged to make significant efforts and investments in order to obtain an indisputable military superiority, which only gives them the certainty that they will fight in conflicts located below the specter of total war. After all, as noted by British General Rupert Smith (2008, p. 10), "the opponent tends to play with our weaknesses and not with our strengths." In a way, General Michael Lundy and Colonel Richard Creed (2018, p. 21) admit this apparent contradiction by stating that "Army forces do not have the luxury of focusing solely on large-scale land combat at the expense of the other missions the Nation requires them to do, but at the same time, they cannot afford to be unpre-pared for those kinds of operations in an increasingly unstable world."

The greatest danger, in this context, lies in the possibility that American leaders will allow themselves to be attracted to a technological, geopolitical, and arms dispute, the intensity and breadth of which lead to the overextension and virtual depletion of US resources and capabilities, as it happened to the Soviet Union during the Cold War. Russia and China know this and are betting on the pace of the competition, in addition to the continuous North American engagement around the planet, as a means to gradually exhaust their western opponent.

It is also reckless that professional soldiers give in to the temptation to dedicate themselves exclusively (or almost exclusively) to large-scale combat operations, to the detriment of other capabilities, such as unconventional war and counterinsurgency, for example. In fact, an army that is prepared only for the great battles of attrition will represent more of an obstacle than an asset in the face of the "volatile, uncertain, complex and ambiguous" 21st century scenarios. In other words, the US Army must necessarily be able to make a quick transition between conflicts that present varying levels of intensity, fighting in one or more theaters of operations simultaneously. But in addition, they must demonstrate the aptitude to fight regular and irregular wars in the same place, at the same time and with the same proficiency, as determined by the Army Chief of Staff, General Mark Milley (MILLEY; SPER, 2018a, 2018b). This requires that the competencies necessary to overcome state and non-state opponents be, simultaneously, developed throughout the process of professional preparation of the Force and not in a segregated manner, as it has been usual.

Although the *FM 3-0 Operations* manual explicitly places emphasis on conventional combat between larger-scale regular forces, the doctrine expressed in its pages does not segregate "war" and "non-war" operations, admitting the possibility that the Army, in the performance of all its strategic roles (figure 3), will engage in counterinsurgency

operations, humanitarian aid, military assistance, among others, in the context of broader stability operations.

5 O.K. Corral

The concept of Multiple Domain Operations has as its central idea the development of capabilities that allow Army forces to penetrate and disintegrate, when necessary, enemy A2-D2 systems and then explore the resulting freedom of maneuver in order to achieve strategic objectives (UNITED STATES, 2018, p. VII). This conception tends to emphasize, above all, the importance of victory in the first battle as a prerequisite for the permanence of forces inside the theater of operations.

The time factor is also crucial. Low-intensity conflicts can persist for many decades inconclusively, but public opinion's acquiescence in relation to the massive use of military might rests, among other things, in the perspective of a short campaign. In addition, hypersonic weapons, artificial intelligence, cyber attacks, instant information and other technological innovations give a rhythm to events much higher than the human reaction time, exponentially increasing the speed of engagements (UNITED STATES, 2017b, p. 15). Certainly, traditional bureaucracies will not be agile enough to keep up with the dynamics of combat.

All of this leads one to believe that an eventual conflict of greater magnitude in the near future will not admit "a new defeat in the step of Kasserine"[5]. In other words, the first confrontation may be decisive due to its strategic implications. Therefore, it is natural that this set of circumstances contributes to the development of a *"duel at O.K. Curral"*[6] *mentality – a culture oriented towards an ephemeral, ultimate and definitive struggle between the forces of good and evil.* In a way, the terminology in use already expresses some of this belief. Referring to the usual attrition battle as "decisive action," for example, can subliminally induce the unwary to privilege their tactical needs at the expense of more relevant political and strategic considerations.

However, there are two major problems embedded in this logic.

First, the obsession with victory in the initial battle can precipitate it. In the period before 1914, for example, the European military was convinced that the first nation to order the mobilization of its armies would have a decisive strategic advantage over its opponents. Thus, the generals, with their mobilization spreadsheets, contributed enormously to the war outbreak, advocating strategic plans that compressed the time margins available to make crucial decisions at the political level (KISSINGER, 2012, p. 177).

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5   Defeat imposed in 1943 by Afrika Korps on the United States Army in Tunisia. In the previous year, allied troops landed in North Africa and, until then, the campaign's progress was satisfactory. The victory obtained by Rommel and his experienced soldiers showed that American troops, at the beginning of their participation in the war against Nazi Germany, still lacked better tactical performance.

6   Famous shooting in the US state of Arizona in 1881, involving police officers (notably the three Earp brothers) and a small group of outlaw cowboys. This episode of the "old west" has been improperly portrayed in the popular imagination as the archetype of the ultimate struggle between good and evil.

Second, the enemy may be able to refute a "duel with the Earp brothers" or accept to confront them repeatedly. In 1812, General Kutuzov's refusal to offer Napoleon a decisive battle was the key to Russian success. In 1941, despite the Red Army's inability to curb the Wehrmacht's initial advance, none of the numerous defeats suffered was decisive. The Soviet power to indefinitely prolong a campaign of unimaginable proportions, while Nazi Germany's military resources inevitably ran out, resulted in Stalin's victory. In the end, the qualitative superiority of Hitler's Army mattered little. During the conflict in Vietnam, even though it lost almost all battles, Hanoi was able to sustain its enormous war effort indefinitely. Meanwhile, Washington's political capital was waning and American national cohesion was being put to the test. Such aspects must be taken into account in the face of a China endowed with apparently infinite human and material resources, in addition to national leaders who, unlike volatile democracies, remain obstinately focused on longer-term political and strategic goals.

6 "Information Drives Operations"

The *FM 3-0 Operations* manual admits that "[...] in modern conflict, information has become as important as lethal action in determining the outcome of operations" (UNITED STATES, 2017a, p. 2-23). However, it is natural that when prioritizing training for large-scale combat soldiers attach greater importance to kinetic actions. This emphasis, often undue, tends to prevail on the battlefield as well. As Wilson Blythe and Luke Calhoun warn (2019, p. 17), "The days of securing campaign success solely through traditional combat operations are over. Victories on the twenty-first century's physical battlefields will be fleeting unless tied to an integrated information operations campaign". "Certainly, armies will continue to use lethal force – often, applying enormous destructive capabilities. However, if they aim to achieve victory, they must do so according to a new set of purposes. It is a redefinition of the focus, transposing it from the "physical kinetic" to the "informational strategy" (VISACRO, 2019b, p. 66).

Nothing should lead us to underestimate the importance of applying conventional military power to obtain decisive results. However, we need to recognize that "the usual tactical actions with a kinetic effect in the physical dimension will only be useful to the extent that they are oriented towards the achievement of a psychological goal that can be widely explored and enhanced by advertising at the political and strategic levels, being part of a broader informational context. Therefore, it is essential to add psychological value to the forceful actions typical of conventional combat. Otherwise, such actions will prove to be counterproductive and, therefore, unnecessary" (VISACRO, 2018, p. 138). "Winning the war before the battle is fought through information operations will become an imperative, and land forces will need to contribute to perception management in the cognitive dimension as a core element of military operations" (UNITED STATES, 2017b, p. 16).

Figure 5 allows to identify graphically how limited the tactical actions of kinetic effect in the physical dimension become, if they are dissociated from the whole spectrum of conflict. Let us take as an example an action that has as its sole objective the degradation of the combat power of an opposing regular force. It would present a linear profile devoid of a deeper spatial perspective, as it would be restricted to the horizontal axis of the quadrant of military means. In other words, without a broader systemic view, any effort, even if essential, tends to become meager.

Figure 5 – Spectrum of the conflict
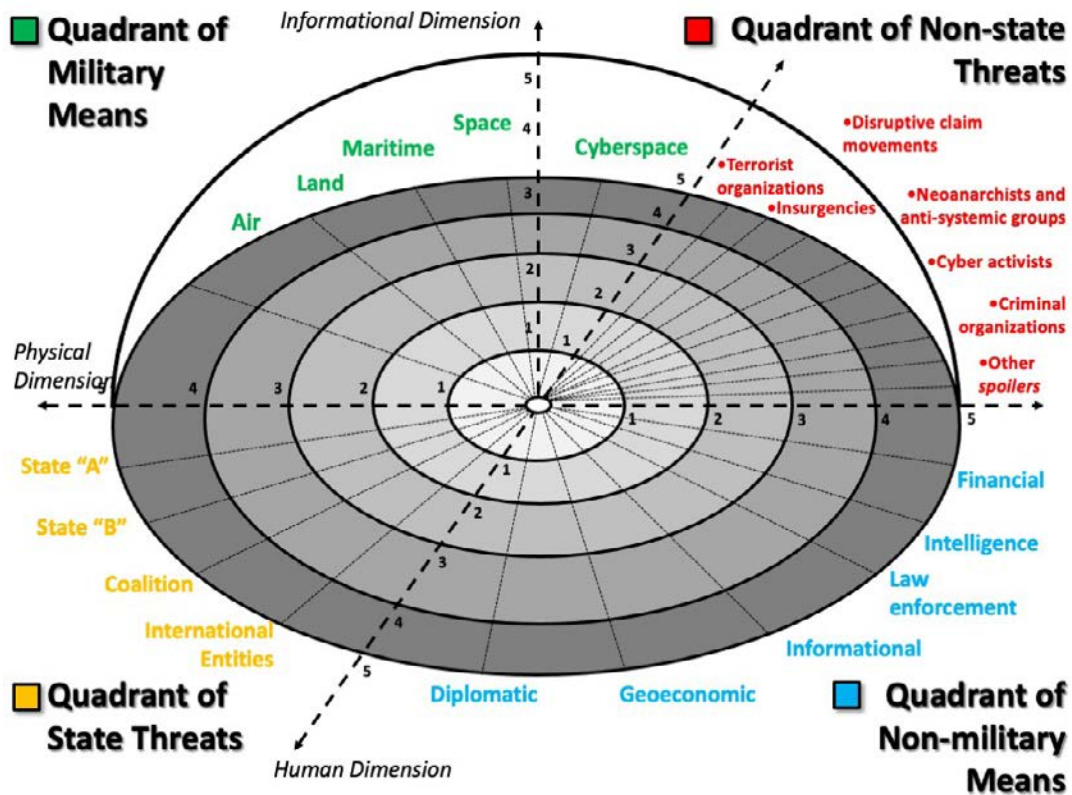
Source: Adapted from Visacro and Doktorczyk (apud VISACRO, 2019b, p. 65).

Synchronizing combat functions across multiple domains can lead to the destruction of the enemy's military forces in the battle of attrition. However, victory in war depends on the skillful combination of kinetic and non-kinetic actions in the physical, human and informational dimensions, in order to contribute to the achievement of a tangible political objective.

7 Conclusion

Feasible policy goals should guide strategic planning. As obvious as this statement may seem, history offers countless examples of statesmen who have vainly

Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 187-210, May/August 2020

203

committed the nation's resources, pursuing contradictory or unattainable goals. Also, it is not uncommon for cases in which the strategy employed proved to be incompatible with the political purpose.

The intensification of global competition nowadays occurs at an unprecedented pace, breadth and reach. Certainly, the Gap of Suwalki is not a mere substitute for the Fulda Gap. That is, the complexity inherent to each regional problem, at present, suggests the limited effectiveness of solutions from the last century – including the current international order.

Therefore, it is necessary to be cautious both in the formulation of State policies and in the search for new strategic arrangements. At the same time, the portfolio of alternatives offered by the military instrument should increase flexibility at the national political level – not limit it (compare figures 2 and 6). In opposing the 2003 invasion of Iraq, General Wesley Clark warned of the risks of creating exaggerated expectations about the use of conventional warpower, in the absence of more versatile and less orthodox strategies. Referring to the writer Mark Twain, he stated: "when the only tool you have is a hammer, every problem tends to be treated like a nail" (CLARK, 2019, n.p.)

Figure 6 – Integrated political, strategic and tactical design
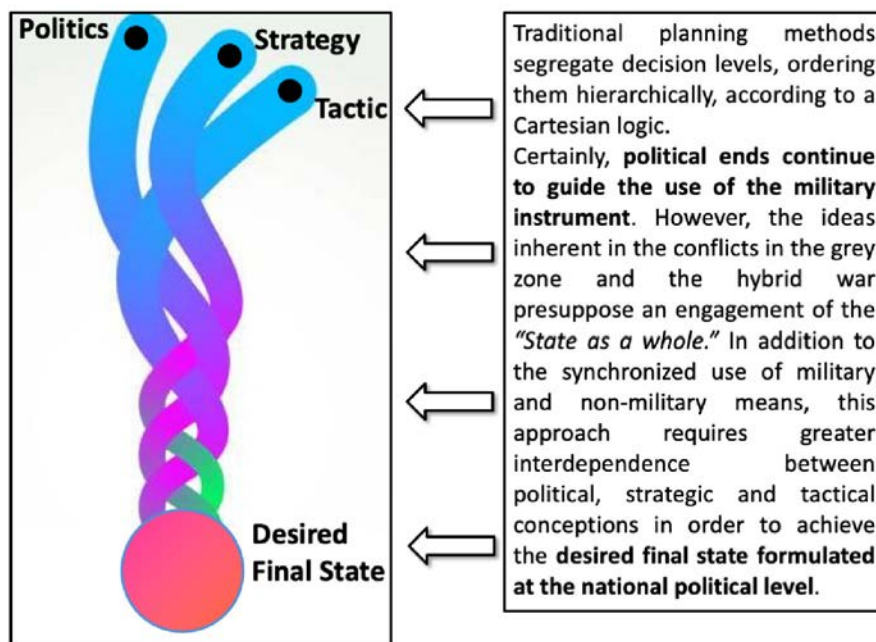
Source: the author (2020).

Undoubtedly, the US Army must be ready to prevail over its opponents, reaffirming its superiority in conventional large-scale combat. It is also undeniable that this capacity has been progressively contested by powers determined to challenge the *status quo*, in regional and global terms. Therefore, the concern with the worsening of a crisis that could lead to total war is lawful and, therefore, does not allow negligence. However, it cannot eclipse what TRADOC considers the first operational problem:

how will the joint force play its role in a proactive, adaptable and effective way in the fierce competition that remains below the conflict line? (UNITED STATES, 2018, p. VIII).

The "zero phase" (mold) actions will be decisive for the outcome of the crisis, regardless of the proportions that it may acquire over time. Even if the rise in hostilities cannot be contained and culminates in an open confrontation, strategic actions undertaken below the specter of total war will not stop entirely. Likewise, initiatives associated with "earnings consolidation" must permeate all of the Army's strategic roles, not being limited to the post-conflict (UNITED STATES, 2017a, figure 1-13, p. 1-12). This requires enormous versatility of the military instrument, in addition to the extreme competence and genius of the commanders in the field.

Showing war superiority in multiple domains is fundamental, but it will not be enough to support the complex geopolitical game that lies ahead:

> The most urgent requirements today are to view this range of challenges as a coherent and integrated set and develop an overall strategic concept to guide long-term U.S. and partner responses. Specific responses undertaken outside the context of a strategic concept could waste resources and produce counterproductive results. More than developing any specific capability or undertaking any particular action, the United States will be fully positioned for this intense competition below the threshold of [total] war only when it truly organizes itself - its thinking, its whole-of-government coordination, and its regional implementation - for the challenge. (MORRIS et al., 2019, p. 187)

Therefore, the doctrinal formulation process must prevent the emergence of a dangerous conceptual *gap* between the strategic and the tactical, as it has been in the past. After a brief period of blind exaltation of "large-scale combat operations" (LSCO), many analysts already recognize that, although essential, the mere emphasis on the regeneration and expansion of conventional war capabilities will not bring the answers for complex contemporary strategic challenges. The ingenuity, creativity and determination characteristic of the US soldier will certainly lead them to victory in the next battle. However, a heterodox approach to Multiple Domain Operations may be the key to their victory in the next war.

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Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 187-210, May/August 2020

209

ECEME

Failed States: From the origin to United Nations interventions in the post-Cold War

Estados fallidos: Desde los orígenes hasta las intervenciones de la ONU después de la Guerra Fría

Abstract: The purpose of this article is to deepen the knowledge about Failed States, analyzing this theme from its origin to its utilization today. To this end, this article is structured as follows: first, a brief background about the subject is provided, followed by an explanation of the research objective. In the sequence, opposing and favorable currents of thought about Failed States are presented. Next, a brief history of the evolution of this topic in society is provided. Then a debate is held on the concept of Failed States and its respective utilization. The next section outlines the methodologies adopted by some Think Tanks that set out to measure State failure, followed by a section discussing the international community's attempt to rebuild certain States from the fall of the Berlin wall. In the final section, reflections are made on the usefulness and importance of this theory today.

Keywords: Failed States. State reconstruction. UN. Peace operations.

Resumen: El propósito de este artículo es profundizar el conocimiento sobre los Estados Fallidos, analizando este tema desde su origen hasta su uso en la actualidad. El presente artículo está estructurado de la siguiente manera: inicialmente se hace una breve introducción sobre este tema, seguida de una presentación del propósito de la investigación. A continuación, se presentan las corrientes de pensamiento opuestas y favorables sobre los Estados Fallidos. Después se hace una breve historia de la evolución de este tema en la sociedad. Posteriormente, hay un debate sobre el concepto de Estados Fallidos y su utilización. En la siguiente sección se presentan las metodologías adoptadas por algunos Think Tanks que propusieron medir la quiebra del estado. La siguiente sección trata sobre el intento de la comunidad internacional de reconstruir ciertos Estados tras la caída del Muro de Berlín. En la sección final, se hacen reflexiones sobre la utilidad e importancia de esta teoría hoy en día.

Palabras clave: Estados Fallidos. Reconstrucción del Estado. ONU. Operaciones de paz.

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Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 211-230, May/August 2020

211

1 Introduction

The transition from the 1980s to the 1990s represented the end of an era and the beginning of another in international relations. The collapse of the communist regime undermined the apparent stability that prevailed in the international system, contributing to the outbreak of countless wars and frictions in countries that, for the most part, were supported by the political status quo that prevailed until then. This phenomenon had even greater reach and strength in Third World states, which were politically, militarily and economically nourished by the world clash caused by the two powers of the time: the United States of America and the former Union of Soviet Socialist Republics (HOBSBAWM, 1995).

But the change was not restricted to just that aspect, as the planet has become much more complex than before. Akokpari highlights that the 1990s were marked by an increase in the number of intra-State conflicts, which have the most varied characteristics and motivations (AKOKPARI, 2016). For Nay (2013), most of the international crises triggered in this period occurred in States that had high levels of state failure, located predominantly in Asia and Africa. In Adekanye's view, the main causes of the conflicts that broke out at that time were poverty and the fragile socio-economic reality of some countries (ADEKANYE, 1995). Hyden (1992), on the other hand, understands that the heart of the frictions that occurred in this period was the insistence of some States on the monopoly of natural resources existing in their domains. For Guest, the origin of most of these disputes was the political causes, notably the cases of corruption, disrespect for human rights, neopatrimonialism and disrespect for democracy (GUEST, 2004). Copson (1994) interprets this issue in another light and infers that the main motivation for the conflicts that occurred after the fall of the Berlin wall was anchored in the troubled ethnic politics practiced by the elites of some countries.

This multiplicity of positions reveals the complexity of the scenario that had been established on the planet and the difficulty in reaching a consensus in the academic environment on the motivations of the main crises that broke out in the globe since that period. In this way, one of the terms used by the academic world to typify certain States and that served as a basis for public policy-making of some supranational institutions was that of Failed States (JACKSON, 1990).

Legitimized by the United Nations (UN), the international community sought to resolve these crises, intervening in several countries. Not by chance, the largest number of peacekeeping missions implemented by the United Nations in a ten-year period was registered in the 1990s: 37 peace operations (POs) (RODRIGUES; MIGON, 2017). However, this increase in the number of peacekeeping missions in the 1990s, coupled with the complexity of the environment that had been established, caused an uncertain result. If, on the one hand, the UN has recorded some successful events in its peacekeeping missions, on the other hand it has also seen cases of failure in its POs. As an example of successful missions carried out by the UN in this period, we can mention the cases of Namibia and Mozambique (BIGATÃO, 2007). And as a failure of POs triggered by the same institution, we have the UN interventions in Rwanda and Somalia (KENKEL, 2013).

Bearing in mind that the theme that involves Failed States explains a good part of the international crises that occurred since the 1990s, and taking into account the

importance of this issue in the United Nations decision-making for intervention in some countries, the purpose of this article is to deepen the knowledge about the theme that involves the Failed States, analyzing it from its origin to its utilization today. In order to propose a systematic approach in this study, this article is structured as follows: first, a brief background on this subject is provided, followed by an explanation of the research objective. Next, opposing and favorable currents of thought about the theory dealing with the Failed States are presented. Then a brief history of the evolution of this theme in society is provided, followed by a debate on the concept of Failed States and its respective utilization. The next section outlines the methodologies adopted by some Think Tanks that set out to measure state failure. In the next section, we discuss the attempt by the international community to reconstruct certain states after the fall of the Berlin wall. And in the final section, reflections are made about the usefulness and importance of this theory today.

2 Currents of thought

The State is an institution that is about ten thousand years old. This structure, varying from region to region, was not guided by a single development model and was molded according to the interests and needs of each society. This reality remained until 1648, a moment that was characterized as the beginning of a new form of state (BOBBIO, 1987). Falk (2002) clarifies that the pacts signed in the Peace of Westphalia in 1648 allowed countries to acquire large armies, centralize bureaucracy-related activities and exercise sovereign authority in their domains. These aspects leveraged the modern state to become the main actor in the international system, since they exclusively assigned it the legal capacity to provide security, establish laws and guarantee other rights for the population. Among the various principles of a Westphalian state, two stand out: 1) state sovereignty; and 2) the concept of the Nation-State (FALK, 2002).

However, there is no consensus in the literature on the role and model that the State should adopt in the contemporary world, especially after globalization and the rise of other actors in the international system. On the one hand, it is clear that there are currents of thought that favorably advocate the leading role of the State in the international arena and that its main foundations are based on 1648. On the other hand, it is observed that there are currents of thought that understand that the Weberian-Westphalian State could not be adopted as the basis for the foundation of a single and uniform model in view of the current architecture of the international system.

One of the main criticisms of opposing currents of thought about the theory that deals with failed states is supported precisely by the fact that the term "failed states" is coined on the assumption that all states must move towards the concept of state adopted by the western world, being guided by the democratic and liberal character (HAGMANN; HOEHNE, 2008). Boeg and et al. (2009) converge with this way of thinking and add additional ingredients as they stress that the weakness of this concept lies precisely in the adoption of the form of the Weberian-Westphalian State as a model to be followed and reached by all countries in the world.

Boas and Jennings (2007) take a similar view and point out that the weakness of this theory is also supported by the assumption that all states must adopt a single model

in the international system. The duo also brings relevant information to the debate by stating that there are many countries that are political units, but do not adopt the Western model of State, and that, as compared with a model different from the reality in which they find themselves, they become fatally fragile.

Berger and Luckmann (1995) corroborate the thinking of the above-mentioned authors and also do not agree with the adoption of the concept of Failed States, as they state that, for a State to be considered failed, it must be compared to an ideal model of State. Extending the discussion even further, Brooks analyzes this theme more broadly and understands that the numerous definitions of failed states are supported in opposition to successful States, notably Western ones. He adds that the problem of adopting this theory can be explained by history itself, which is full of cases where attempts to replicate the Western model of State in other places did not have the expected results, generating new crises and further aggravating the situation of these countries (BROOKS, 2005).

With a more pragmatic stance, Rocha de Siqueira (2017) criticizes the use of the term and the methodology used to verify the level of state failure in countries around the globe. In her view, the quantitative approach employed can also be understood as certain states' form of power expression.

Turning to verify the currents of thought favorable to the concept of Failed States, Thürer understands that this model is perfectly applicable, as it serves as a tool to help understand the performance of the State in its essential functions for society. He also stresses that this term does not have a pejorative character, as it refers only to a temporary situation that the State is facing and that it just aims to identify the existing problems so that possible solutions can be found (THÜRER, 1999).

Mair also advocates favorably and infers that the debate on Failed States is valid, as it can provide the following contributions: 1) the different points of view existing in society about the responsibilities of a State are capable of promoting a theoretical and enriching debate on the indispensable functions of the State; and 2) the study that is carried out to identify and measure state failure, naturally leads to a robust diagnosis of the degree of failure of a State's key functions (MAIR, 2008).

Zartman takes a favorable position on the use of this theory, as he understands that it makes it possible to identify those States that are no longer capable of performing the three essential functions that characterize them as such: 1) the State as sovereign authority; 2) the State as an institution; and 3) the State as a security provider within a given territory. In other words, if a State is unable to perform any of these functions, it can be characterized as failed (ZARTMAN, 1995).

Rotberg also adopts the concept of Failed States, but analyzes this topic in a different light. For him, state failure is something broader and more complex, being the result of the action of innumerable factors and actors that operated for a long period, eroding institutions and undermining the authority of the State, coming to generate a picture characterized by economic stagnation, political sectarianism, ethnic sectarianism, corruption of public agents and decadent infrastructure (ROTBERG, 2004).

Mazão is part of the debate and understands that the use of the concept of Failed States allows to obtain a broad view of a State, insofar as this theory reveals the performance of the main state institutions during a certain period. He also reports that the product obtained by this study is extremely useful to the State itself, as it directly contributes to strategic planning and public policy making (MAZÃO, 2011).

In view of what has been reported, there are two currents of thought about Failed States: those that are favorable and those that are not favorable. On the side of the current contrary to the adoption of this theory, it is clear that the central aspect where much of the criticism converges rests on the adoption and use of the Western model of State as being the ideal for a country and that, from this reference, States that are not aligned with this model become fragile. On the other hand, those who favorably advocate the adoption of the concept of Failed States, it appears that the validity of this concept lies in the products that this study is capable of, such as: reflection on the role of the State, indispensable functions of a State, comprehensive analysis of State performance in various sectors, public policy making, assistance in decision making, among others.

3 Failed States – from the end of World War II to today

Several historical facts have followed and influenced, to a greater or lesser extent, the formation of States. Events such as the first Industrial Revolution, the second Industrial Revolution, the Berlin Conference in 1885, World War I, World War II, the Cold War and Globalization can be included in this list. As regards Failed States, the understanding of this theme necessarily involves the understanding of three important historical events and how they relate to state failure: 1) the end of the World War II; 2) the end of the Cold War; and 3) the terrorist attacks that occurred in the United States of America (USA), on September 11, 2001.

The end of World War II revealed a scenario marked by the rise of the USA and the former Union of Soviet Socialist Republics (USSR) to the positions of superpowers on the planet. Concomitant to this scenario, European countries went into a decline, a fact that directly contributed to the emergence of several independence processes triggered by countries, which until then were considered European colonies and were under the sphere of influence of European countries, but which after the global war conflict pleaded to withdraw from the European colonial yoke (ROTBERG, 2004).

As the world was experiencing the Cold War, it was noted that the process of independence of these former European colonies took place under the seal of ideological confrontation. In other words, the self-determination of the peoples of these countries took place either with the support of the USA or with the support of the former USSR. In view of this reality, it is clear that the Cold War and the independence of former European colonies were intrinsically linked phenomena, where one benefited from the other and vice versa (SOUZA, 2010). While the superpowers needed to increase their area of influence, the former colonies needed political support for their independence to be recognized before the international system. In this framework, it can be inferred that the Cold War made insertion possible, as

well as guaranteed the survival of several fragile States in the international system, given the conditions in which these two phenomena occurred during the 1990s (CARMENT, 2003).

State fragility became clearer in countries located in Asia and Africa, where most of the newly independent States did not have the desired institutional maturity, nor did they have a sense of nation in their societies. Seeking to understand the new architecture that had been installed on the planet, particularly with regard to the condition of countries that were weakened in the processes of national liberation struggle that started after World War II, the academic community first produced the concept of Failed States in the early 1980s (SOUZA, 2010).

During the 1980s, this theme gradually gained strength among public and political authorities. But it was with the end of the Cold War that this theme reached another level, becoming part of the international agenda of many countries (BILGIN; MORTON, 2004). The contribution provided by the superpowers of the past to the newly independent states in the context of the bipolar confrontation had diminished and, in many places, this funding had been extinguished. This caused another reality to emerge within these countries, namely: the inability of the newly independent States to effectively manage the territories that were under their responsibility (MELO, 2006).

Rotberg corroborates this statement and goes further. For him, since the end of the Cold War an increasing number of States have been failing, mainly in Africa and Asia, and others have shown signs that they can fail (ROTBERG, 200 4). Zartman converges with Rotberg and makes additional comments, implying that the fall of the Berlin wall not only dissolved the bipolar order, but created conditions for many States to collapse (ZARTMAN, 1995). And it was in this dynamic that the concept of Failed States further evolved in the 1990s, characterized by the dissolution of the former USSR, by the reflexes of this event on the planet and also by the resumption of UN activities.

Fukuyama (2005) adds additional ingredients and reports that in the period between the fall of the Berlin Wall and the attack on the twin towers in 2001, most of the international crises generated by the Failed States were of a humanitarian nature and were restricted only to the region where they were located. This characteristic meant that the international system did not prioritize the issue of Failed States on its agenda, as it understood that they did not represent a threat to the sovereignty of the main countries in the world. He complements this issue, implying that the actions taken by the international community to solve these problems have not always had the desired effects and cites the cases of Somalia, Bosnia, Liberia, Rwanda and Congo.

But it was in the year 2001, with the 9/11 attack in the United States, that the debate on Failed States gained new momentum and new forms. This event made Failed States a priority on the security agenda of many developed countries, especially the United States. Many US specialists believed that the origin of the terrorist attack on the twin towers was based on the conditions and support that some States provided for certain terrorist groups. It was in this context that the conceptual debate about Failed States took place, correlating them with other global problems, such as: terrorism, refugees, among others. Thus, the consequences arising from this status became no longer just a regional problem but a global threat, as they presented problems such

as: they harbored terrorist groups with global reach; they were unstable places that generated numerous forced migratory movements and caused side effects in other countries (SOUZA, 2010).

In view of the above, it is observed that this theme has always been directly related to the dynamics established in the international system, establishing a more intense relationship after the Cold War. It is noted that the end of the state apparatus provided by the USA and the former USSR to numerous countries in the context of ideological confrontation revealed a scenario marked by complexity and a generalized state failure in various parts of the globe. Since then, the theme involving Failed States has been used to help analyze the international environment, understand the role of the State today and contribute to the resolution of certain global problems.

4 Failed States – the complexity of the concept

But after all, what are Failed States? How to identify a Failed State? What leads a State to be considered failed?

For Monteiro (2006), the publication of the article entitled Saving Failed States, authored by diplomats Gerald B. Helman and Steven R. Ratner in the renowned American periodical Foreign Policy, can be considered as the starting point of all academic discussion that involves Failed States. In this article, Failed States are defined as States that are completely unable to support themselves as members of the international community, since the violence and anarchy generated within their limits generate side effects such as forced migratory movements, wars, conflicts and political instability, aspects that endanger its population and threaten the stability of neighboring countries (HELMAN; RATNER, 1992).

For Woodward (2004), the starting point of the debate on Failed States is the study prepared by the United Nations Development Program (UNDP) in 1994. In summary, this program urged States to prepare themselves in the face of new challenges that were emerging on the international scene after the Cold War. In view of this, countries such as Norway, Canada and Japan changed the foreign policies that were underway and reoriented and aligned them with the precepts established by UNDP. As a consequence, it was noted that the new security policies to be adopted by these countries prioritized people more than the State. In other words, certain phenomena and responsibilities that were not previously attributed to the State, with these reorientations started after the Cold War, began to be characterized as state responsibilities (JACKSON; SORENSEN, 2007). Since then, to better understand the role of the State today, several studies have emerged on the role of the State and what would lead them to state failure.

According to Milliken and Krause, what is expected of a State is that it promotes five basic values for society: security, freedom, order, justice and well being. When the State is unable to provide these functions to society, it can be considered failed (MILLIKEN; KRAUSE, 2002). Jackson and Sorensen converge with the thinking of Milliken and Krause, and add additional ingredients when they say that there are currently States that are unable to guarantee these values with their population, as well as lacking the legitimacy and recognition necessary to guarantee themselves as States in the international system.

They also clarify that the term coined to typify the situation of these countries is that of bankruptcy or state failure (JACKSON; SORENSEN, 2007).

Rotberg, on the other hand, understands that a State can be considered failed when it is unable to make decisions in favor of the community and implement them. In his view, this ineptitude occurs when the internal scenario is characterized by the occurrence of generalized internal violence and its inability to fully provide basic public goods to its inhabitants (ROTBERG, 2004).

It should be noted that there is no single and uniform concept of Failed States within the academic community. It is noticed that the existing thoughts converge to the State's inability to perform the basic functions for its inhabitants. The existing debate rests on two aspects, namely: 1) what are the elementary functions of the State; and 2) what is the degree of failure in the key functions that can determine whether the State is failed or not (MAIR, 2008). Therefore, in order to understand these issues, it is necessary to know which functions are decisive for the failure of the State.

For this purpose, Woodward (2004) analyzed this phenomenon and reached some conclusions. In his view, the State shows some signs that it is heading for failure. In general, there are three elementary signs: 1) the first and most important sign rests on the limitation of the monopoly on the legitimate use of force or on the total loss of that monopoly; 2) the second sign is the State's inability or even unwillingness to use force when necessary; and 3) the third and final sign is when the State uses force prematurely, as it has numerous mechanisms for trying to solve the problem (financial, economic, social, cultural, political, legal and moral). In short, it is noted that all signs have a common aspect, namely: the legitimate use of the security monopoly.

Milliken and Krause (2002) take an emphatic stance and state that, of all the exclusive functions of a State, the most important is its capacity to protect and guarantee adequate security for its citizens. Thürer understands that a state can be considered failed when the institutions that provide the necessary support for the maintenance of law and order collapse, a fact that leads to internal disorder, which is usually accompanied by widespread chaos and countless anarchic forms of violence (THÜRER, 1999).

For Klare, the State must perform several functions, the most important of which is the capacity to protect its nationals from external attacks and internal disorder. When a State is no longer capable of fulfilling this function, its authority decreases, thus moving towards its weakening (KLARE, 2010). Bates also understands that the aspect related to security is the most valuable asset that the State should provide to its population, and enlighten us by informing that the State can be characterized as failed when it does not have a monopoly on the use of available coercive means (BATES, 2007). In the perception of these authors, it appears that the determining factor for State failure is based on two central aspects, namely: 1) its performance in functions related to security and freedom of people, that is, in the role of security and defense institutions; and 2) the monopoly on the legitimate use of force.

From another perspective, Melo understands that the main problem of Failed States today is related to issues of the human dimension, namely: the existence of hunger, the right to minimum levels of health, the occurrence of forced migratory movements, respect for human rights, among others (MELO, 2006). In this architecture, it is perceived

that the factors related to human security are decisive to determine whether a State is failed or not. In other words, this concept is understood more broadly, as it is not limited to assessing State performance only in the security and defense sectors.

In a different and complementary way to this debate, Garret and Adams indicate that the term Failed States cannot be equated with some threats, such as terrorism, international organized crime, the proliferation of weapons of mass destruction and humanitarian crises. In the duo's view, the study on Failed States is valid because it reveals something important, namely: these threats can be prevented, as they understand that they are more likely to occur in States with high levels of state bankruptcy (GARRET; ADAMS, 2004).
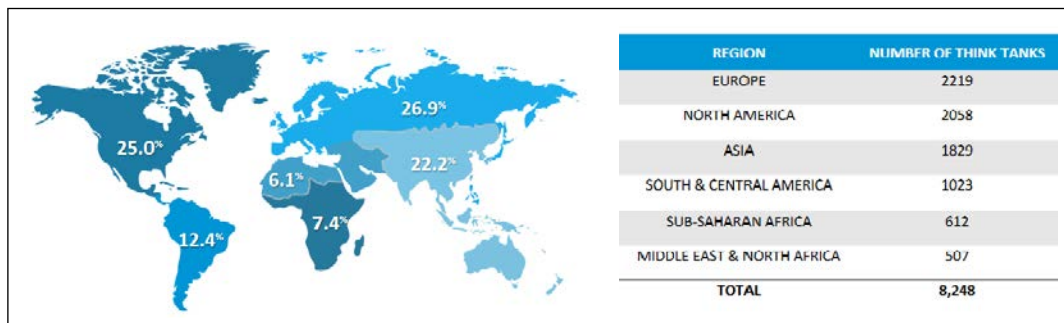
The different perspectives adopted to try to understand Failed States and what they represent create points of view that are in dialogue and complement each other, since they were launched in order to check the performance of the State in its essential functions (HESSELBEIN, 2008). That most studies pointed out that the functions related to security and defense are the most important for a State and that the collapse of the institutions responsible for these functions undoubtedly leads a State to be considered failed. In addition, aspects related to the human dimension, such as human rights, the right to private property, among others, are also relevant in determining the efficiency of the State with the population.

5 The Think Tanks – measuring state failure

Just as important as identifying whether a state is failed or about to fail is to measure the level of state failure it is in. In view of this reality, several institutions have proposed to study this topic and have established several methods to investigate the failure of a State.

Seeking to know such institutions, McGann conducted a survey and mapped all existing Think Tanks in the world in 2018. In this study, he found the existence of eight thousand, two hundred and forty-eight (8,248) Think Tanks operating in the globe in 2018. In addition to this robust universe, he also found that these institutions conduct research of all kinds, spanning from studies geared to security matters and defense, through studies focused on the political and economic sector and studies devoted to the environment, among numerous other areas (MCGANN, 2019):

Figure 1 – Number of Think Tanks existing in 2018 on the planet

REGION	NUMBER OF THINK TANKS
EUROPE	2219
NORTH AMERICA	2058
ASIA	1829
SOUTH & CENTRAL AMERICA	1023
SUB-SAHARAN AFRICA	612
MIDDLE EAST & NORTH AFRICA	507
TOTAL	8,248

Source: McGann (2019).

Due to the large number of institutions and in view of the variety of themes that they study, this research will discuss only the effort of 4 Think Tanks that proposed to study the phenomenon of State Failure. The first Think Tank is the Fund for Peace. This institution, based in the USA, produces an annual report measuring the levels of state failure in 178 countries, called Fragile States Index. This index assesses, based on various data, the performance of countries on 12 indicators, which are concentrated on four variables (FUND FOR PEACE, 2019a):

Table 1 – Methodology adopted by the *Fund for Peace*

	Variables	Indicators
Fragile States Index	1. Cohesion	1. Security
		2. Dominant elites
		3. Group dissatisfaction
	2. Political factors	4. Legitimacy of the State
		5. Public services
		6. Human Rights and the Rule of Law
	3. Economic factors	7. Economic inequality
		8. Human rights
		9. Shortage of talents
	4. Social factors	10. Demographic pressures
		11. External interventions
		12. Forced migratory movements

Source: *Fund for Peace* (2019a).

The data are obtained from UN affiliated agencies, the World Bank and the World Health Organization (WHO). In the end, all 178 countries are placed in a state failure ranking and categorized into four groups. As regards the ranking, it should be noted that the first positions reveal the states that have the highest levels of state failure. With regard to groups, it is observed that each group houses a number of countries that have similar levels of state failure, which are color coded: 1) sustainable – blue color; 2) stable – green color; 3) in danger – yellow color; and 4) on alert – red color (FUND FOR PEACE, 2019a).

The second Think Tank is the Canadian International Development Agency. This institution carried out a study called *Country Indicators for Foreign Policy*. This report analyzed the performance of 174 countries in 10 areas, by assessing 74 indicators. Unlike the Fragile States Index, which compares countries by issuing a state failure ranking, the *Country Indicators for Foreign Policy* does not compare states, nor does it establish a ranking. It analyzes the countries individually and determines only the level of fragility they are in aspects related to strength and weakness, based on 74 indicators (CARMENT, 2003).

The third Think Tank is the School of Public Policy, of George Mason University, based in the US. This institution also set out to analyze Failed States and materialized its studies in a report entitled *Political Instability Task Force*. One aspect that needs to be highlighted is the connection of this Think Tank with the American

government, which, through the United States Central Intelligence Agency (CIA), finances the group's research activities. Although there is such funding by the CIA, the Think Tank makes it clear that its reports and presentations do not represent the official views of the US government, nor of the American intelligence community or the CIA, but only the individual opinions of the Researchers of the School of Public Policy, George Mason University.

In this standard, the proposal prepared by the School of Public Policy proposes that the stability of a State should be analyzed, if it can demonstrate effectiveness and legitimacy in its actions throughout history. In other words, to be effective, the State must be able to provide its essential functions, such as security, economic growth and the supply of public goods; and to be legitimate, it must be assessed whether such functions are perceived by society as fair or reasonable under the terms of current social norms (GOLDSTONE et al., 2010).

Taking these precepts into account, the School of Public Policy favored qualitative analyses aimed at the performance of institutions in the face of the main internal and external challenges that arose over the history of a country. In general, state fragility was analyzed, checking the occurrence or not of four major events (GOLDSTONE et al., 2010):

Table 2 – Methodology adopted by the *School of Public Policy*

	Events	Indicators
Political Instability Task Force	1. Revolutionary Wars	Clashes between the government and organized groups to try to overthrow it.
	2. Ethnic Wars	Conflicts between the government and ethnic, religious or minority groups whose goal is to change the *status quo*.
	3. Regime Changes	Abrupt changes in the form of governance, political instability and the existence of authoritarian regimes.
	4. Genocides and Politicides	Government policies that can result in the death of minority groups.

Source: Goldstone et al. (2010)

The Table 2 clarifies that the School of Public Policy leaned on history and used the occurrence of events such as wars, genocides, politicides and regime changes in a country to determine the state's fragility, as it understands that these facts also reveal a state's inability to be effective and legitimate.

The fourth Think Tank is The Brookings Institution, an American Think Tank based in the city of Washington, USA. The study carried out by this institution involved the participation of two researchers and was materialized in a report issued in 2008, the *Index of State Weakness in the Developing World*. Rice and Patrick (2008) clarify that this index evaluated the performance of 141 countries by analyzing 20 indicators, concentrated in four sectors: 1) the economic sector, 2) the political sector, 3) security and 4) social welfare:

Table 3 – Methodology adopted by *The Brookings Institution*

	Sectors	Indicators
Index of State Weakness in the Developing World	1. Economic Sector	1. *Per capita income*
		2. Growth of Gross Domestic Product
		3. Income inequality
		4. Inflation
		5. Quality of regulatory measures
	2. Political Sector	6. Effective government
		7. Rule of law
		8. Accountability
		9. Control of corruption
		10. Freedom classifications
	3. Security	11. Intensity conflicts
		12. Political stability
		13. Coup d'etat
		14. Human Rights Abuses
		15. Conflict-affected territories
	4. Social welfare	16. Infant mortality rate
		17. Primary school completion rate
		18. Malnutrition rate
		19. Percentage of the population with access to drinking water
		20. Life expectancy

Source: Rice and Patrick (2008)

The previous table shows us that the innovation of this methodology is supported by the use of new indicators to measure State failure, not being limited only to the country's performance in the security sector. That is, the utilization of indicators focused on the economy, politics and social well-being are the innovative aspects of this methodology, as they show that these sectors have the same weight as the security and defense sector for the stability of a State.

From what was seen, the methodologies used by Think Tanks presented different aspects in their application. In fact, they complement something that has been reported previously, namely: the existence of countless points of view on Failed States and what they represent in current international architecture. It is also noticed that most of the adopted methodologies converge to measure State performance through selected indicators, concentrated in certain sectors, and which vary from institution to institution. In general, it was noted that the Think Tanks considered the security sector as the most important to measure the stability of a State.

## 6 The (re)construction of States – putting the theory into practice

But how did the international community attempt to reconstruct certain states after the fall of the Berlin wall? With the democratic regime as its core, the UN led this

process and intervened in several countries. In general, this intervention envisaged several actions, such as: financial aid, political support, use of peacekeeping missions, among others. With 57 peace operations launched in 35 countries after the end of the Cold War, POs have become the most used tool by the UN to rebuild states. In summary, these missions sought to provide the necessary contribution to strengthen the main institutions of the host countries (UNITED NATIONS, 2019a).

Fukuyama (2005) weaves additional details and infers that the reconstruction process initiated by the United Nations had three phases, namely: 1) the first phase was marked by the use of military force by UN troops until stabilizing the places in conflict; 2) the second phase was characterized by the establishment of a coalition composed of several countries, which assumed a good part or all of the governance functions of the Failed State and which, in an attempt to reconstruct it, exported the best practices of its institutions ; and 3) the third and last phase was the removal of the coalition from the State and the return of the control of all state institutions to it.

It was in this way that the international community tried to resolve the crises that were breaking out around the globe. As most of these instabilities occurred in States that had high levels of state failure, Easterly (2001) points out that all of the UN POs were carried out in these locations, which are located in the red and yellow sections of the following figure:

Graph 1 – The Pyramid of Failed States
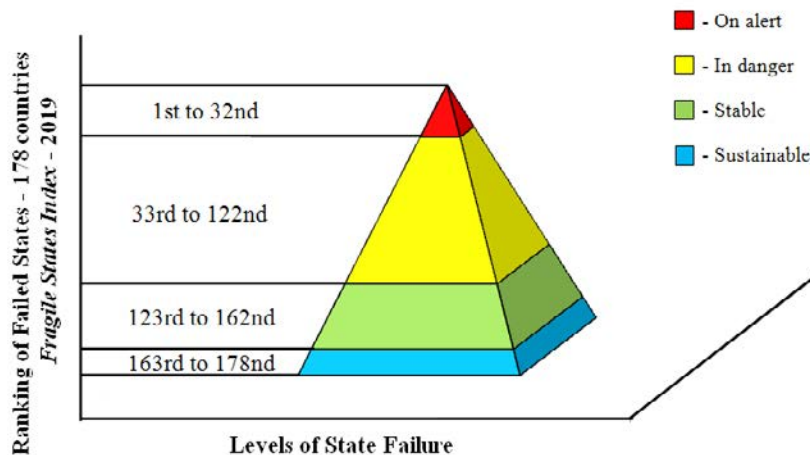
Source: Author's preparation, with data from Fund for Peace (2019b).

According to the previous figure, the red color represents the group of states with the highest risk to society, as it indicates the countries with the highest levels of State failure. In turn, the yellow color represents the group of States that are also at risk, but on a lower scale than the previous group and therefore should receive special attention from society (FUND FOR PEACE, 2019b).

However, the simple application of this methodology was not enough. The end of the Cold War created new challenges for POs. The problems faced by blue helmets

Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 211-230, May/August 2020

223

in host countries have become more complex. The local conflicts of yore gave way to globalization, which among countless aspects, allowed a greater circulation of people and, with the emergence of the Internet, eliminated several borders. That is, crises that were previously local, with the gaps generated by globalization, had become global (RODRIGUES; MIGON, 2019).

However, much goodwill there was, the United Nations was not prepared to face this new economic reality. With an ineffective methodology, the UN did not achieve the expected success in all its missions. On the contrary, there were cases of failure in this endeavor. On top of being complex, rebuilding a state takes time. Factors linked to the cultural values of the population, the existing social norms and the internal demand for institutions are just a few of the countless factors that should be considered in the process of state reconstruction conducted by the United Nations.

Thus, Easterly (2001) points out that it was quite common for a country to receive foreign aid for a certain period and, subsequently, to present similar or even worse indexes than it had before the international intervention. In turn, Van de Walle (2001) reports that, despite receiving support from the UN, several countries showed a setback in the performance of their main institutions. Graph 2 clarifies these aspects, showing the updated levels of state failure in the 35 countries that had UN POs in their territories after the Cold War:

Graph 2 – State failure after peacekeeping operations
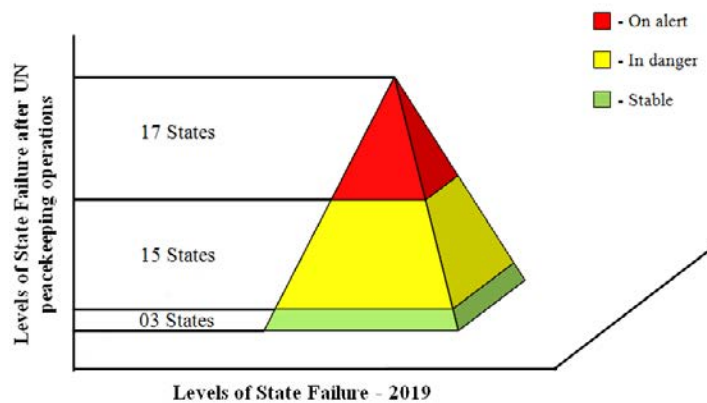
Source: Author's preparation, with data from DPKO and Fund for Peace (2019b).

According to Graph 2, of the 35 states that had UN peacekeeping missions in their territories, only 03 (Serbia, Croatia and Kuwait) are currently stable. The remaining 32 countries continue to have high state failure levels and continue to pose risks to society today. In addition, Graph 2 shows that none of the 35 countries is sustainable today. With due precautions, it can be said that after the Cold War, UN POs provided lasting stability in only 8.57% of the locations where they were present.

With such expressive numbers, it can be inferred that the UN has not achieved the expected success in resolving the international crises that broke out after the Cold

War. With the proposal based on the reconstruction of certain states considered as failed, the United Nations did not live up to the expectations placed by the international community in their work, as they were not able to generate the so proclaimed and expected lasting peace in 91.43% of the places where it intervened after the Cold War.

7 Conclusions

Failed States is a very sensitive issue, as it has the capacity to label, positively or negatively, the main actors in the international system: States. It was not by chance that this study pointed to the existence of two currents of thought in the scientific community: those that are favorable and those that are not favorable to the use of the term "Failed States". The main aspect that divides academics, politicians and scientists from these two currents of thought rests on the use of the Western model of State, since they do not agree as being the reference to be followed by all countries of the world.

Disagreements aside, it was found that this subject has been closely related to society since 1648, on the occasion of the Peace of Westphalia. However, an episode that occurred in the late 20th century was decisive for the change of status and the inclusion of this theme on the agenda of many countries: the Cold War. The attacks that took place on September 11, 2001 boosted a theme that had been increasingly present during the 1990s, since a good part of the scientific community pointed out that some States were supportive of certain terrorist groups, as well as indicated that these same States were also responsible for other global problems, such as forced migratory movements and the side effects arising from this phenomenon.

One aspect that needs to be highlighted was the effort made by the academic community and by some Think Tanks to map and rank State fragility in the countries, which revealed the divergence that exists in the debates today. On the one hand, it was found that most scientists and Think Tanks listed the security and defense sector as the most important in a State. On the other hand, it was found that the same Think Tanks analyzed followed different paths and developed their own methodologies to measure the levels of State fragility.

This divergence was not an obstacle for the UN to use this theory to support its decision-making to intervene in certain places. However, when the United Nations decided to put this theory into practice, it turned out that the reality was tougher than previously thought. Under the slogan of state reconstruction through peacekeeping missions, it was observed that the UN made more mistakes than successes in its interventions worldwide and did not live up to the expectations of the international community. The lasting peace promised by the United Nations was only possible in 8.57% of the places where the institution was present after the Cold War. Despite the UN efforts to improve its performance in places of conflict, this study suggests that the methodology used by the institution in peacekeeping missions should be continually reviewed and adapted. Cultural, political, historical and social factors are indispensable elements in this methodology.

Controversies and failures aside, it is understood that the effort made by some Think Tanks generates a consistent diagnosis of the State in various fields of power, as it analyzes its performance through economic, social, military and political indicators, which are obtained from its main institutions. Despite the failures obtained by the UN in peacekeeping missions, this article highlights that the main core of this theory (Failed States) rests on the correct application of the studies carried out by Think Tanks, which can assist in the making of adequate public policies, in consistent strategic state planning, and in the solid situational awareness of a State, essential factors for the progress and growth of a Nation-State.

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Coleç. Meira Mattos, Rio de Janeiro, v. 14, n. 50, p. 211-230, May/August 2020

227

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Acknowledgements

Our acknowledgment for the the financial and administrative support from the following institutions and their related agencies. As well as all staff who get involved directly and indirectly with the Coleção Meira Mattos in 2020.

Coleção Meira Mattos

revista das ciências militares

Publication

Edition