



THE A2/AD (ANTI ACCESS/AREA DENIAL) CONCEPT – BETWEEN THEORY AND PRACTICE –

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10.55535/RMT.2024.1.6*

A continued deficit in NATO’s ability to provide permanent security wherever and whenever the allied states’ political interests demand may result in the Alliance failing to maintain internal cohesion and to deter potential geopolitical adversaries. This aspect, constantly hoped for and speculated by the Russian Federation, starting with the resumption of the offensive at the beginning of the 21st century, especially after the annexation of Crimea, has led to a proper dosage of the ingredients that laid the foundation of the A2/AD concept. Understanding the role A2/AD plays in Russia’s doctrinal thinking is as critical as allocating the resources to counter it. A full change in Russia’s strategy in this regard for the Black Sea region is very unlikely, especially after the interdiction capabilities have reached a satisfactory level of operationalization and remain the only ones that guarantee optimal control of the maritime area, thus making it possible to continue ground operations in Ukraine.

Keywords: A2/AD concept; strategy; Black Sea region; maritime control; hybrid war;

INTRODUCTION

An approach to the A2/AD theme cannot begin otherwise than from the perspective of the North Atlantic Alliance, which implies a dose of subjectivism. Also, it should be analysed and understood in its historical becoming, because, although it was not called that way, the tactics of preventing the adversary from using a certain territory for the conduct of its operations is very old. What else could the construction of fortresses, castles, trenches, walls (e.g., the Great Wall of China), defence lines (e.g., the Maginot Line), channels and, more recently, A2AD capabilities to undermine the enemy’s freedom of action mean? Moreover, the set-up of ship groups uses the same underlying A2/AD concept (i.e., ship groups around an aircraft carrier organize and carry with them a security zone targeting all combat environments similar to an A2/AD area).

As in the case of other concepts that seem new (i.e., hybrid war, information war, economic war, media war) history shows us that they have “distant relatives” that manifested long before their conceptualization. Only the operating conditions and the speed at which they invade our thinking (critically, I hope) have changed.

From a purely military perspective, A2/AD is the ability to prevent an adversary from deploying its forces and operating within a given geographic area. In other words, while an anti-access strategy aims at constraining the ability of projected forces to penetrate a theatre of operations, an area denial aims at limiting the freedom of action of those forces once they are present in the theatre. Therefore, the first two of the three missions of a defending fleet, i.e., “to identify the threat”, “to prevent the threat from reaching the objective” and “to remove the threat”.

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Russia began developing A2/AD capabilities in order to create a buffer zone to offset its post-Cold War losses. It managed to do so, to a large extent, due to the synergy of two conditions: on the one hand, the lack of vision for integrated defence planning of most EU states and, on the other hand, the US decision to give an increasing share of strategic attention to the theatres in the Middle East and Asia, as well as a reserved approach in securing the eastern flank of the Alliance.

of naval operations and the multi-domain approach to the specific environment of naval combat. From a conceptual and operational point of view, this evolution has been understood and addressed by military experts, especially after the '90s (following the analysis of Operation "Desert Storm" in Iraq in 1991), thereby expressing their agreement or disagreement regarding the content of this relatively newly approached concept.

Thus, in an October 2016 interview, the Commander of the US Naval Forces, Admiral John M. Richardson expressed his disagreement with the use of the term A2/AD as an autonomous acronym and stressed out that it must be viewed not only from a military perspective, but also in a broader context (Richardson, 2016). In fact, the American official accuses a superficiality in high American political, academic and military circles in the understanding and use of the term that implies too much of the Chinese and Russian military strategies. The concept is far too defence-oriented, Richardson asserted, when in fact it describes both offense and defence, and, above all, it assumes much more complexity than is evident from the discussions of policy makers; effective adaptation to the A2/AD challenge is only possible through a correct understanding of the implications of the problem.

THE DEVELOPMENT OF THE A2/AD CONCEPT

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Starting from 2014, the aggressive attitude of the Russian Federation intensified, a possible explanation being provided by Professor Adrian Cioroianu: "...Russia's main problem at the moment is that it feels under attack from the West. It feels attacked both internally

(the Putin administration has repeatedly accused the USA in particular of financing opposition and dissident movements in Moscow and in the big cities), and externally in its immediate neighbourhood – this being a concept by which Moscow understands the former states of the USSR, in which it considers itself legitimate to have privileged interests, as it has ethnic Russian citizens, for whose safety it feels responsible". (Cioroianu, 2014, p. 11).

At least from the perspective of the Russian Federation's desire to remain a global actor, to continue to control the heartland (i.e., the space between the Atlantic and the Pacific oceans), the action still follows the decade-long policy of the USSR. Within this strategy and due to its geographical position, Ukraine represents an area of utmost importance in the Eurasian area. The former security adviser to American President Jimmy Carter between 1977 and 1981, Professor and political scientist Zbigniew Brzezinski stated in 1990 that "the independence of Ukraine changes the very nature of the Russian state and – by controlling Ukraine – Russia remains an empire in Eurasia. Without control of Ukraine, Russia will remain only a regional power (...) Furthermore, if it no longer controls Ukraine, Russia itself loses its geographical <balance>: after all, it is a European power that dominates a predominantly Asian territory. Without control of Ukraine, Russia becomes (at least on the map) even more Asian than it actually is". (Sturmer, 2014, p. 10).

Returning to the NATO approach, the purpose of A2/AD is to deny an operationally superior adversary's freedom of manoeuvre and action, maximizing its own capabilities and combat power and thus keeping the adversary at bay. It therefore means the denial of freedom of action in electromagnetic, land, air, sea surface, submarine and, more recently, space operational environments in crisis or at war.

For Europe, A2/AD has become a topic of interest, discussed in the most diverse circles, after the annexation of Crimea by Russia. Jānis Garisons, State Secretary of the Ministry of Defence of Latvia, joked that in the Baltic States, "even the housewives were talking about the A2/AD challenge in North-East Europe" (Garisons, 2017). While Russia's military activities peaked with the start of the actions



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in Ukraine, the deployment of anti-access systems in locations adjacent to NATO countries had begun decades ago and was accompanied by a mix of threats and aggressive rhetoric, of rising tensions and suspicions in regions where Russia and NATO have (sometimes diverging) interests, such as the Baltic States and the Black Sea.

Here, as NATO theoreticians claim that the Russian A2/AD “phenomenon” was caused by the allied negligence in the allocation of funds by the member states and by effective inaction (doing nothing in this regard), the Russian ambitions seem equally convinced of their rightness to achieve the A2/AD system, rooted in the argument that their attitude of weakness and neglect led to the eastward expansion of the North Atlantic Alliance. In other words, each side believes that its weakness has been speculated upon and seems to believe so with full conviction. It is very difficult to fight or defeat an opponent who believes wholeheartedly that he is right.

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To summarize, it came down to who acted faster. Moscow has developed concentrated areas of defence capabilities that are aligned with Russia’s historical vision, that is the motherland at the centre of its peripheral, buffer zones. Today, Russia’s efforts to restore its lost position in the region go beyond the military. The international community perceived these efforts through the proliferation of rhetoric, political subversion, disregard of international norms to support domestic national interests, and, starting in 2022, through the use of the military tool in actions specific to armed struggle, by invading the territory of an independent state, and of energy and food as a weapon and tool of intimidation. More worryingly, Russia is testing the limits of the allied commitment to the defence of the member states and the application of NATO Article 5 in energy and food crisis situations through actions in all operating environments.

The construction of the A2/AD capabilities, which with the conquest of Crimea gained an even more solid base from a geographical point of view, has been a decade-long geopolitical effort aimed at consolidating Russia’s regional and even global leadership position in the “approach from abroad” or as the Kremlin tends to label it: “the sphere of privileged interests” (EUvsDisinfo, 2022). It has also

targeted an economic component, namely achieving and maintaining control of hydrocarbon exploitations in the maritime area. By annexing Crimea and developing A2/AD elements no investor who is not accepted by Russia can go there to explore by modern means and exploit deep resources.

One of the main priorities of President Vladimir Putin was and is represented by an ambitious set of policies to revitalize the Russian military in all areas – air, land, sea, nuclear, cyber and space. The foundation of this military revival is based on President Putin’s belief that perceptions of weakness invite competitors to “test” Russia, thereby putting more external pressure and generating internal tensions; as a result, the need for action has arisen, unfortunately most of the time beyond international norms.

Against the background of these beliefs, the Kremlin has embarked on a complex transformation of the armed forces from a model inherited from the Soviet era into a compact, mobile, technologically advanced military force structure that is capable of projecting force in an effective way in a wide spectrum of potential (conflictual) scenarios. At least declaratively. Reality tends to convince us that this approach has not materialized yet.

Russia’s armed forces have not only updated their doctrines, but also tried to modernize the tools on which they rely. Ballistic and cruise missiles provide the backbone of any good A2/AD strategy, and the Russians can capitalize on a long tradition in this sphere. To defend its territory, the Soviet and Russian doctrine has always sought to implement a multi-layered integrated defensive network, linking strike vectors with a system of radars and sensors. The range of strike vectors and sensors has increased greatly in altitude so that anti-missile defence and long-range missiles are the main beneficiaries of the modernization process. In the case of Russia, the A2/AD capabilities are complemented by the modernization process of conventional naval forces, and here special mention should be made to the submarine and corvette program of the Russian Black Sea Fleet.

All these complex integrated capabilities are in turn supported by effective electronic warfare systems that have the ability to jam



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the electromagnetic environment in the radar working bands, can intercept and jam satellite signals, early warning aircraft, drones and ground equipment.

The sustainability of the no-access development intent has been questioned or ignored, at various stages, by NATO/EU analysts and decision-makers. *How far can they go? They will have to stop! They will not have enough resources to complete the development programs!* These are just some of the questions asked in Western chancelleries in recent years that have been disproved and ruined with every A2/AD item built by the Russian Federation in Crimea, be it submarines, corvettes, cruise missile systems, multirole aircraft or strategic bombers.

Obviously, it is important for EU/NATO member states in the Wider Black Sea Area to understand the Russian Federation's theory and practice of creating and enforcing A2/AD areas. The analysis cannot, however, be complete without also referring to what is happening in the other area of strategic interest for the USA, Asia, and when we say Asia we mean China. Central to China's maritime strategy is its disengagement from coastal waters and the imposition of strategic interests in blue waters. Therefore, China has overpassed the time of establishing and imposing A2/AD zones and is constantly acting with a decade-long strategy to create footholds/naval bases in areas where it has invested time, resources, money, influence. Although China currently has only one base in other countries (Djibouti), its policy is to expand its influence and create favourable conditions for leasing/purchasing port facilities that will later lead to the development of advanced naval bases.

The same strategy, applied by the Russian Federation, by distributing A2/AD elements in Syria, Kaliningrad and even in Arctic areas, has been successfully implemented by the USA for many decades. In the operationalization of this strategy, the essential contribution of the most outstanding American strategists of the 19th century, Admiral Mahan, must be remembered. You can also see the similarity with the game invented in China over 2,500 years ago, named "Go".

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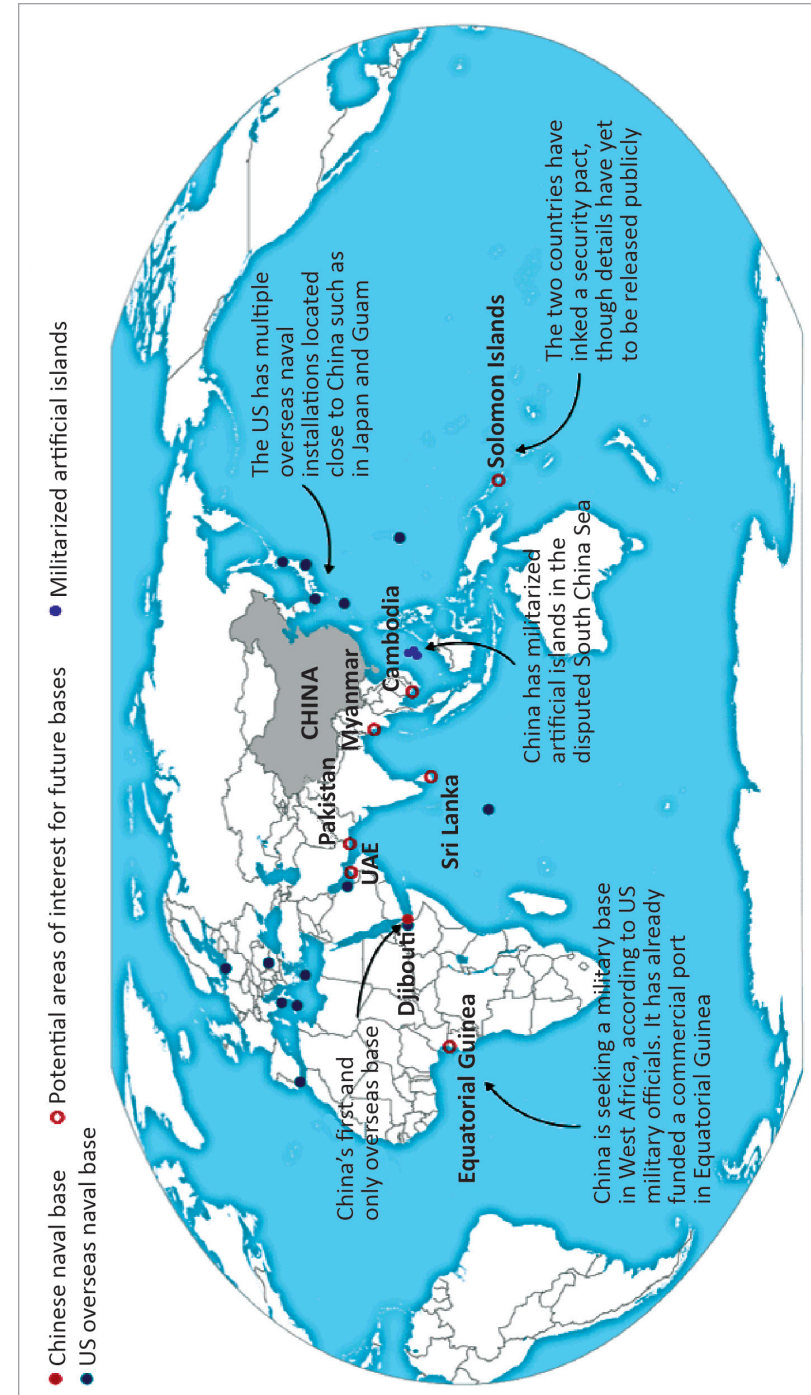


Figure 1: Chinese Naval Ambitions (Lendon, McCarthy, 2023)



Of course, this brief review of the capabilities put in the A2/AD support must not omit perhaps the most important element of threat, which is the nuclear arsenal.

A2/AD COMPONENTS

All these initiatives along the lines of creating A2/AD capabilities that would make possible interventions by an opposing air-naval force very expensive had, from the very beginning, two components.

A first component, “anti-access”, refers to those “actions supported by those capabilities, usually long-range ones, designed to prevent an adversary force from entering an area of operations” (Joint Operational Access Concept, 2012, p. 6). They therefore target (in the sense of the mission to deny/neutralize/destroy) forces approaching their own area of operations, predominantly air and sea, but may also target cyber, space and other forces that support them. Although the A2/AD concept is essentially a defensive one, at least in this first phase, the actions are predominantly offensive. They cover two levels. An information level, which involves a set of measures and actions to determine indicators and warnings regarding the adversary’s intention and the combat power generated by it, and an action level aimed at actions that prevent the preparation for the execution of an offensive action, planning actions, action precursors to gaining (temporary and area) control of the maritime and air space. This first component of A2/AD has the role of keeping the opposing forces away from our own maritime area (or in which we are going to impose our interests) and, if it fulfils its objectives, it can be considered that the entire A2/AD system has fulfilled its objective.

A second component, area interdiction/denial or “turning the ocean into a vast no-man’s land” (Hughes, 2018) refers to those “actions, supported by those usually shorter-range capabilities designed to limit the adversary’s freedom of action in the area of own operations” (Joint Operational Access Concept, ib.), thus creating conditions for the reorganization of the own operative device and the intervention of the main forces to regain control over the area.

I consider that, for a good understanding of the second component of A2/AD, the concept of freedom of action must be analysed, which in military art is called the “principle of freedom of action”. Acquiring and maintaining freedom of action, simultaneously with thwarting or limiting the enemy’s attempts to conquer and keep its own, has been and will continue to be a permanent concern of all commanders on the battlefield. The desideratum is achieved primarily by striving to have the initiative against the enemy, or to win (regain) it when he owns it.

The deepening of the study on the action of this principle in the operations carried out in the modern war involves revealing what should be done to acquire and maintain the freedom of action by using the available forces and means, and through appropriate forms and procedures of action, the ways to be followed to enhance them, the necessary measures to use it and put it into value with the most favourable results.

In a confrontation in which the enemy operates simultaneously on land, air and sea, making extensive use of aviation, high-precision strike-reconnaissance systems, airborne troops, and special reconnaissance-diversion forces, concurrently with the deployment by him of intense actions of electronic and information warfare and with the manifestation of air and sea supremacy, freedom of action can be obtained through actions primarily offensive, dynamic, manoeuvre-based, fast, joint and synchronized, which require from the commanders and troops foresight, initiative, situation awareness and knowledge of the higher echelon’s objective, cooperation, flexibility in leadership and action, streamlining of leadership, actions, troop protection and logistical support.

Achieving these conditions for the manifestation of the principle of freedom of action requires predicting the enemy’s intentions and the way the military actions will be carried out, achieving a local and temporary qualitative-functional superiority over the adversary in the most important sectors and directions, ensuring the necessary space and time to carry out the actions, achieving the enemy’s surprise, increasing the capacity for independent action and, in conditions of isolation of the troops, mitigating the influence of disruptive factors



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(e.g., the uncertain nature of information about the enemy, his tendency to misinform, errors that may occur during the preparation and transmission of orders, the physical efforts to which the fighters are subjected, the technical-organizational failures, weather conditions etc.), the superior exploitation of the geoclimatic, economic, demographic, cultural conditions of the area where the operations are carried out, the large-scale use of harassment actions. From the simple enumeration of actions specific to this component of A2/AD, it can be inferred that almost all the general principles of armed combat are achieved, and also the fact that the actions target all areas specific to naval combat (air, surface, underwater and in the electromagnetic space). Therefore, in the defence-type actions, freedom of action can be acquired and preserved through offensive reactions, the use of active defence and other fighting methods characterized by dynamism and impetuosity.

Initiative, as the most obvious form of expression of the principle of freedom of action, must not be manifested only in decisive moments of the battle, but in all situations, starting with the first actions and ending with the complete fulfilment of the general strategic goal of the war.

The principle of freedom of action is, therefore, the most significant in obtaining success, in adopting an offensive attitude in all the actions undertaken, synthesized in the slogan *“surprise, preserve and exploit the initiative”*, starting from the idea that offensive action represents the most effective and decisive way to achieve a clearly defined goal and that, in any military operation, the side that keeps the initiative by offensive spirit surprises the enemy, maintains its freedom of action, forces the enemy to react and not to act, achieving decisive results.

Initiative, as the most obvious form of expression of the principle of freedom of action, must not be manifested only in decisive moments of the battle, but in all situations, starting with the first actions and ending with the complete fulfilment of the general strategic goal of the war. Manifestation of the initiative also requires an in-depth knowledge of the combat domains (*“multi-domain operations”* recently entering the operational language), therefore the realization of a recognized operational image, based on an integrated ISR system at the level of allies, an image that would allow access by all the actors involved in the operation of relevant information about the situation in the area of operations.

The distinction between the two components is sometimes difficult to make because many capabilities can be used for both purposes. For example, the same submarine performing an area interdiction/denial mission in coastal waters may be an anti-access capability when engaged in a remote mission.

CONCLUSIONS

The resulting question seems to be *“What is to be done at the NATO/EU level to manage a security situation in which the adversary builds its conception of action on the existence of an A2/AD capabilities?”*.

A first option would be for NATO to identify the existence of the A2/AD capabilities (with all the subsystems that make it up) and avoid it. This variant involves executing activities and taking complex measures along the lines of awareness of the maritime situation, paralleled by planning and undertaking a set of complementary measures (without presupposing the direct deployment of forces) and actions that lead to the fulfilment of own security objectives. *“Our first response should be to double diplomacy, because America offers freedom, security and economic opportunities where China wants control”*, said politician Seth Moulton, in an interview with CNN (Moulton, 2023).

Avoiding an adverse A2/AD capability may have a first motivation that it is *“a nut hard to crack”* and therefore the effort represented by the combat power consumed is too great to neutralize it compared to the effects obtained. A second motivation can come from the result of the analysis of the effects on the line of conflict escalation that such an action can have, effects that are sometimes undesirable.

Such a course of action characterized the entire Cold War period, and the current security situation created in the Black Sea Area makes us wonder if it was enough. The reality of our days proves that it is not.

A second course of action is to create other capabilities at the NATO/EU level to counter the opposing one. This option seems justified based on NATO’s defensive role, defined as such in the treaty. The action option will lead to an escalation of the procurement effort with multi-domain capabilities (including the space domain), therefore with a constant increase in pressure on defence budgets.



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A third variant of action is to achieve those capabilities through which NATO/EU can "break" the adversary's A2/AD "bubble" in order to apply its combat power in maritime areas contested by the adversary. It means achieving superior capabilities to the adversary, in the information field, strike capabilities, security and protection, the implementation of preventive strike measures etc., therefore offensive capabilities, which presupposes that NATO abandons its defensive posture.

Obviously, in the conditions where the information technology (with a determining contribution of AI) acquires an increasingly important role in combat capabilities, it implies a reorientation of the procurement policies of some states lagging behind (among which most of the states from the NATO/EU eastern border), based on coherent security strategies, connected to NATO/EU strategies. It means that the role of such a system is not to achieve a certain degree of defeat to the adversary, but to deter his actions in the area of operations where there are opposing interests (Schmidt, 2016).

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The three courses of action have been presented separately only to explain them. The security situation in the Black Sea Area demonstrates that it was not applied sequentially, but that only a combination of the three methods can be successful. Obviously, these options for action exhaust their potential at the moment when the nuclear weapon appears in the equation, at which point diplomacy remains the last resort.

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