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DEVELOPMENT OF THE RUSSIAN ANTI ACCESS/ANTI DENIAL (A2/AD) CONCEPT AS A THREAT TO NATO AND POLAND

ABSTRACT

This article presents an analysis of the development of the Russian Anti Access/Anti Denial concept – A2/AD. The considerations contained in this article focus on identifying the threats that the Russian A2/AD concept creates for NATO and Poland. This article compiles empirical data from scientific publications, formal strategic and doctrinal documents, which allowed to define the A2/AD category, specify its essence and characterize it through the prism of military and non-military forces and resources engaged by Russia in several important operational regions: the Kaliningrad Oblast, Crimea, Syria and the Arctic.

The aim of this article is to evaluate the Russian Anti-Access/Anti Denial concept from the perspective of the threats it creates for NATO and Poland.

The obtained research results allow us to make the conclusion that when assessing the current external conditions, effective opposition to the Russian A2/AD by NATO will be very difficult to implement. Increasing the capabilities in this area will probably require the individual member states to increase their defense spending, mainly on the modernization and development of their armed forces. In addition to increasing the financial expenditures, increasing the ability to counteract the Russian A2/AD will require proper coordination and integration of the activities of the entire NATO structure around one coherent operational concept. This applies not only to counteracting the Russian A2/AD in Europe but also in other regions of the world, which in the near future may become the theatre of military operations, both classic, asymmetric or hybrid.

Keywords: Anti Access, Anti Denial, strategy, means of destruction, operational area

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1. INTRODUCTION

Throughout the entire history of warfare, opponents have regularly tried to deny each other freedom of movement on the battlefield. Earlier forms of anti-access served to protect the friendly forces and prevent adversaries from gaining an advantage.

As part of its expeditionary activities, American forces began to pay great attention to their safe deployment in the theater of operations and the capabilities that will guarantee them the opportunity to gain and maintain air, space and sea advantage.

Moreover, it should be emphasized that A2/AD has been known for a long time as a concept of conducting activities. It has appeared under various names and has been implemented with the use of military means available in a given historical period. Historic and contemporary A2/AD concepts have always shared a common goal: *preventing the enemy from reaching the area of operations, and in the event of failure (blocking the enemy), restricting the freedom of the enemy military actions in the area of the operation*. Considering the development of anti-access concepts, it can be concluded that their earlier forms served both to protect their own and allied forces and to prevent the opponent's forces from gaining an advantage (Dobija, 2019).

After the end of the so-called Cold War period, for many years the strategic concept of NATO assumed that the Euro-Atlantic space was an area of peace and that the threat of a conventional attack on any of the Alliance member states was unlikely. A change in the perception of threats took place at the end of the 20th century and the beginning of the 21st century. This was largely due to the great involvement of the USA and NATO in hostilities, which were conducted mainly outside the treaty area, e.g. in Iraq or Afghanistan. An example of this is the hostilities that took place in 1990–1991, during the First Gulf War, when the US and their allies gained access to the area of operations, which allowed them to prepare the “Desert Storm” operation without any problem for about six months. A similar situation occurred in Afghanistan in 2002 as part of the “Enduring Freedom” military operations and in Kuwait in 2003 as part of the “Iraqi Freedom” operation. All of these campaigns were preceded by the entry of the US troops and their allies into the area of operation. Similar assumptions regarding A2/AD were also adopted by other countries, including China and Russia. The difference, however, is that they assume preventing US and NATO forces from accessing an operational area located on their own territory or in an area controlled by them (Neagoe & Borsa, 2019). In particular, the development of Russia's A2/AD concept constituted a significant prompt for NATO to increase their efforts, which would result in the design of a concept to neutralize the Russian A2/AD capability. The need to find an effective antidote to the Russian A2/AD has become even more pressing after Russia's annexation of Crimea and the commencement of hostilities in eastern Ukraine, which are *de facto* being carried out with varying intensity to date. Another issue that should cause concern for NATO, including Poland, is the progressing militarization of the Kaliningrad Oblast.

NATO's first attempt to respond to Russia's actions was deciding to strengthen the so-called Eastern Flank. This was a particularly important move, taking into account the fact that Russia increasingly often began to direct its threats not only against Ukraine, but also against the Baltic states and those NATO countries that agreed to deploy elements of the American anti-missile shield on its territory (Fryc, 2015). It should be noted here that Poland was also among these countries.

2. LITERATURE REVIEW

One of the important elements of the presented considerations was explaining the concept of A2/AD, defining its essence, and providing a general description. This was done based on literature review. When analyzing the literature, it can be noticed that it was only in the early 1990s that American scientists saw the need to connect information with the space and environment of the battlefield (sea, air and land). This concept was to form the basis of the development of American military power in the 21st century (Krepinevich, 2002). Subsequent research, however, indicated threats to the implementation of such a strategy for the United States itself. It also turned out that the US's most dangerous opponents will be able to use their abilities to limit the deployment of the US forces and deny them access to the disputed regions. Taking into account the identified threats, it was decided to develop a concept of counteracting A2/AD created by their opponents, mainly Russia and China. The overall assumptions of this concept were presented by the US Center for Strategic and Budgetary Assessments in 2003. They stated that the essence of Anti Access (A2) would be preventing the US forces from entering the theater of operations. The next stage (phase) will be the so-called Anti Denial (AD), the essence of which will be to limit the American forces' freedom of action in areas under the direct control of the potential enemy (Kofman, 2019).

When analyzing the literature, attention should be paid to the approach to A2/AD presented by Prof. Andrew A. Michta. He believes that its essence is a skillful combination of activities that will limit the possibilities of military access to a given area with activities that limit the possibility of conducting operations in the controlled area (Michta, 2016). In addition, he noticed that the area around which A2/AD is created does not have to be an area of military operations each time, but it may be another place (area), the control of which will allow for gaining an advantage or even control in the given region of the world. This is a particularly important finding in view of the actions taken by Russia (Dobija, 2018).

When analyzing the literature and the doctrinal documents, attention should be paid to the fact that only the expansion of this two-part name allows us to understand the complexity and scope of projects that are implemented under Anti Access/Anti Denial – A2/AD. In other words, as part of A2, the enemy's forces are prevented from entering the operational area by actions limiting their freedom of movement. The Area Denial, on the other hand, are all activities involving the use of means of combat with a range smaller than in the case of the Anti Access concept, the purpose of which is to limit the freedom of action of the opponent's forces in the area of a joint operation (U.S. Department of Defense, 2012). This distinction is particularly important due to the fact that the implementation of the A2/AD assumptions requires the use of qualitatively and quantitatively different military means, supported by non-military means. Within A2, these measures include long-range combat measures that will prevent the potential enemy from deploying their forces in the Joint Operation Area – JOA. This group includes the following weapons systems:

- multi-channel and integrated air defense systems, including modern fighters, strike aircraft, stationary and mobile surface-to-air missiles, and coastal defense systems;
- cruise missiles and ballistic missiles that can be launched from multiple air, sea and land platforms against land and sea targets of the enemy;
- long-range artillery and multi-purpose missile systems (McCuen 2008);
- nuclear and conventional submarines armed with supersonic anti-ship missiles and advanced torpedoes and ballistic missiles;

- satellite systems and other measures supporting the space infrastructure necessary for observation in and from space (Caton, 2018);
- electronic warfare measures;
- modern reconnaissance means allowing to detect targets in the air, on land and at sea;
- fiber optic command and control (C2) networks linking together different reconnaissance and destruction systems;
- special forces.

It should also be emphasized that activities under A2 are not limited only to the use of cutting edge military equipment. It also includes information warfare activities carried out in cyberspace (Dinicu, 2014). In this regard, it should be noted that cyberspace is a global network that can be manipulated, e.g. by increasing or limiting accessibility, etc. (Russell, 2015). With an appropriate configuration and relatively low financial outlays, using cyberspace, it is possible to monitor the movement of troops and influence the public opinion in various ways (Tikk et al., 2018).

Apart from American publications, Romanian literature is also interesting. Such publications include scientific studies (Bobric, 2020) and doctrinal documents, e.g. military strategy (Defense White Paper, 2017) as well as regulations from over the last five years. According to the assumptions presented in these publications, A2/AD operations include actions aimed at delaying, preventing or hindering the movement of foreign troops or limiting the possibility of their dislocation in the theater of operations (Krepinevich, 2003). Such actions are performed using a large variety of long-range means of destruction that are capable of preventing enemy forces from entering an area of action, theater of operations, or area of responsibility.

Recently, numerous discussions on the consequences of the development of A2/AD capabilities have also flared up in the debate in France. The 2017 French strategic review of defense and national security, together with the Military Programming Act 2019–2025 identified A2/AD as a real threat to France (*Revue stratégique de défense et de sécurité nationale*, 2017).

In the case of Polish publications, it can be stated that the subject matter is discussed very rarely, as evidenced by the small number of published scientific articles and the lack of solutions for counteracting A2/AD in the national doctrinal documents.

Based on the results of the literature analysis, it can be noticed that the term A2/AD is explained in various ways. In English-language literature, it is assigned several meanings, i.e. the concept of isolating the battlefield, the concept of blocking access and counteracting, and the doctrine of “closing” access to the intervention forces (Alcazar, 2012). In my opinion, the name that most fully reflects the essence and scope of A2/AD is the anti-access and anti-denial strategy. In addition, the analysis carried out allows me to state that A2 and anti-denial (AD) are two fundamentally different groups of activities carried out ultimately to achieve a common goal, which is to gain an advantage over the opponent in a specific region (area). Nevertheless, in military literature, these two terms are often used interchangeably, or they are confused with other types of activities. It also occurs that both meanings function under a common term: “anti-access” (Dobija, 2019). Meanwhile, activities implemented under A2 are completely different from AD activities. They use different means of combat, they are carried out at different distances and in other areas, and their effects are also different from those achieved by means of AD.

In this matter, it is also obvious that the use of all these weapon systems will not always be necessary. Therefore, the scope of their use will be determined by a specific situation and requirements the real need for their use (Elak, 2018).

In addition, it should be noted that the goal of the A2/AD strategy is not to destroy opponents but rather to delay them and weaken their forces to such an extent that their operations are doomed to fail (Mattis & Hoffman, 2005). By successively reducing the enemy's combat strength, their ability to continue military operations also diminishes.

3. MATERIALS AND METHODS

Taking into account the problem situation outlined, it was assumed that this article would aim to evaluate the Russian Anti-Access/Anti Denial concept through the prism of the threats it creates for both NATO and Poland. Bearing in mind the adopted goal, it was decided that its achievement will be possible as a result of solving the research problem expressed in the form of a question: What threat does the Russian A2/AD concept pose to NATO and Poland?

Theoretical and empirical methods were used to find answers to the main research problem and explore the subject of the research. The main methods included: analysis and synthesis, analogy, generalization, comparison and inference. The research was based on the analysis of literature as well as normative and doctrinal documents. Therefore, it was the source of reliable information about the subject of research. In particular, this concerned the definition of A2/AD, the essence of this concept, and the forces and means used within it. Generalization and analogy helped to define a group of factors that determine Russia to organize A2/AD zones in specific places on the world map. The inference was helpful in formulating conclusions regarding the threats to NATO and Poland posed by the further development of A2/AD by Russia. Furthermore, scientific observation, which focused on the strategic and operational aspects of Russia's use of military force during military exercises over the past five years, was an important supplement to the applied research methods.

4. DISCUSSION

4.1. THREATS TO NATO AND POLAND RESULTING FROM THE DEVELOPMENT OF THE RUSSIAN A2/AD IN THE KALININGRAD OBLAST

For some time now, Russia has been consistently and systematically strengthening its military potential, which indicates the growing threat posed by NATO. This applies in particular to the deployment of heavy military equipment in the countries forming the NATO's Eastern Flank. In addition, the great discontent on the part of the Russian authorities also results from the distribution of elements of the so-called US Anti-Missile Shield in Poland and other countries, e.g. Romania and the Czech Republic. In response to these actions, Russia began to increase its military presence in the Kaliningrad Oblast more and more significantly. This is emphasized, among others, by American general Franc Gorenc, who stated in an interview that the Russians use the A2/AD tactic, which may limit access to the airspace. In his opinion, Russia has already developed its anti-aircraft defense system to such an extent that it may pose a threat to NATO planes. In addition, the Iskander ballistic missile systems in combination with other long-range fire systems can destroy targets located in the territories of the Baltic countries and over 1/3 of the territory of Poland, as shown in Figure 1.



Figure 1. Destruction ranges of selected Russian missile assets deployed in the Kaliningrad region

Source: <http://nationalinterest.org/blog/the-buzz/entering-the-bears-lair-russias-a2-ad-bubble-the-baltic-sea-1776>

In the event of further militarization of the Kaliningrad Oblast, Russia is able to create a tight defense umbrella that will allow it to control the most important operational regions in the immediate vicinity. If necessary, it may also block the Polish armed forces' freedom of action, and in a wider perspective, for the NATO forces deployed on the Polish territory as well. From the Russian point of view, such actions seem to be fully justified, if only due to the fact that Russian politicians have repeatedly said that Kaliningrad is a very important bridgehead of Russia on its western border, surrounded by the NATO countries on all sides (Żyła, 2018).

Therefore, there is no doubt that for the Kremlin it is an area of special strategic importance, and that is why it is being continuously strengthened. It can even be assumed that this concept is not limited to creating a very strong air defense zone (including anti-missile defense) with the use of various reconnaissance, electronic warfare and jamming systems and a wide variety of long-range anti-aircraft systems (S-400, S-300W4).

The range of the S-400 Triumf covers a large part of Poland, Lithuania and the Baltic Sea, which would significantly hinder the operations of the Alliance's aviation in the event of a conflict with Russia. From the point of view of A2/AD capabilities, the main role is played by the 3rd Air and Space Force Brigade stationed in Kaliningrad. In this area, the Voronezh-M early warning radar is also located, which can detect objects at a distance of up to 6,000 km. In turn, the 25th Coastal Missile Regiment is deployed in Baltiysk (three batteries of the P-35 Redut sea-to-sea mobile missile complexes with the P-35 supersonic anti-ship missile with a range of about 250 km. On the other hand, the deployment of the Bastion

systems enables precise combat against land targets located in the territory of a potential enemy, including Poland.

The serious threat posed by the Russian forces deployed in the Kaliningrad Oblast has also been noticed by Polish military experts. They claim that in the event of a conventional armed conflict, the Polish Air Force may be deprived of freedom of action by blocking the aircraft stationed at airports, which in the next phase will become the main target of the Russian strikes of tactical ballistic missiles and long-range missile artillery. In such a situation, the proposals for moving planes to another country, e.g. to the territory of Germany may be considered.

To sum up, there can be no doubt that the actions taken by Russia in the Kaliningrad Oblast are leading to the creation of a kind of umbrella (bubble) which will ensure security for its forces deployed in this area. Analyzing the essence of the Russian A2 /AD, despite the fact that from the theoretical point of view it is defensive, in fact, under its cover, offensive actions can be prepared (Ashmore, 2009).

4.2. THE DEVELOPMENT OF RUSSIAN A2/AD CAPABILITIES IN OTHER REGIONS OF THE WORLD AND ITS IMPLICATIONS FOR NATO

NATO and Poland should be concerned not only with the growing Russian A2/AD capabilities in the Kaliningrad Oblast, as the threat posed by the Russian A2/AD has a much wider dimension and also refers to other operational areas. This also applies to Russia's possible deployment of its forces on three islands: Åland, Gotland and Bornholm, which are of strategic importance for the security of the Baltic Sea. Therefore, Russia has been observing these islands for a long time, and the concepts of their occupation are the subject of military exercises and simulations of operational activities.



Figure 2. The three islands (marked in circles) that could play a key role in gaining control of the Baltic Sea

Source: Heritage Foundation research, from: <http://foreignpolicyblogs.com/2016/10/25/bubble-trouble-russia-a2-ad/>

Another region in which Russia is implementing the A2/AD concept is Crimea. After its annexation by an illegal referendum in March 2014, Russia incorporated this area into its territory. After the occupation of Crimea, progressing militarization could be noticed, which, in effect, is to enable the creation of A2/AD. This seems obvious since the systems that make up A2/AD will be able to block a large part of the Black Sea in the event of a conflict, thus preventing NATO forces from operating. The progressing militarization of Crimea is evidenced by the distribution of forces and means of destruction, the generic structure of which is very similar to that in the Kaliningrad Oblast. This is confirmed by the deployment of the S-300PM, S-400 Triumf and Pantsir anti-aircraft missile systems, and the Iskander ballistic missile launcher. Coastal defense was also greatly expanded by deploying the K-300P Bastion-P systems there (Smura, 2016).

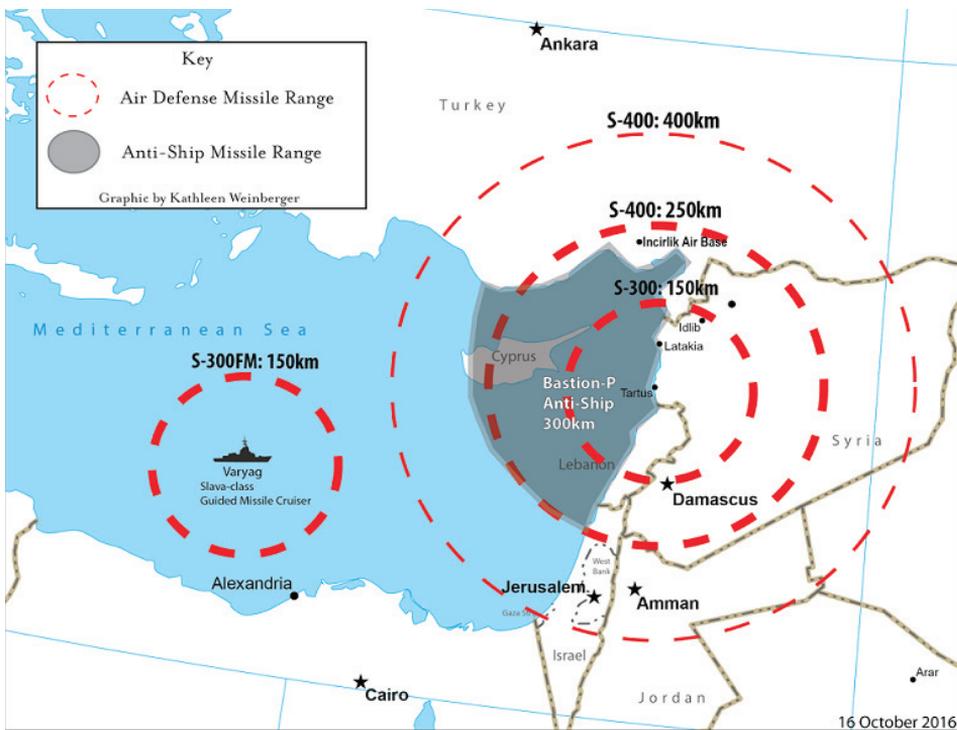


Figure 3. The destruction range of Russian anti-aircraft missile systems dispersed in Syria on land and sea

Source: <http://www.haaretz.com/middle-east-news/1.747305>

Another operational area in which the systematically increasing A2/AD capabilities of the Russian Federation can be seen is Syria. Sending Russian forces to Syria was a response to the shooting down of the Russian Su-24M bomber by Turkey on November 24, 2015. As a result, the Kremlin decided to transfer the state-of-the-art S-400 Triumf air defense system to the Khmeimim air base near the port city of Latakia in Syria (located approximately

50 km from the borders of Turkey) and to move the Moscow missile cruiser armed with Fort anti-aircraft systems (the marine equivalent of the S-300 system) to the shores of Syria. These forces were also supported by aviation. The destruction range of the Russian missile systems is shown in Figure 3.

Despite Putin's announcement to withdraw Russian forces in 2016, a decision was made to keep the Tartus and Khmeimim bases, and more importantly, the S-400 sets remained in Syria. This confirms the experts' assumptions that Russia's actions in this country are not a direct response to the growing tension in the region but part of a broader strategy aimed at limiting the freedom of action of the NATO countries in the regions of strategic importance to Russia. The S-400 system located in the Latakia base covers not only a large part of Syria, but also a part of Turkey with the strategically important Incirlik base, from which activities against the so-called Islamic State are carried out (American B-61 nuclear bombs are also deployed there as part of NATO nuclear sharing program) (Smura, 2016). In turn, Russian experts say that the presence of the Russian forces in Syria is also a part of the new Russian naval doctrine, first published in 2012 and amended in July 2016, known as the "Revised Russian Naval Doctrine up to 2030". As in the case of the previous strategic documents, it defines the role of the navy in the Russian security policy and its goals, and identifies the most important geographic areas for naval operations (Burton, 2016). The new doctrine places emphasis on the Atlantic Ocean and the Arctic region. The growing importance of the Northern Sea Route requires Russia to build a fleet of nuclear-powered icebreakers. The doctrine speaks of the need to reduce the threat to national security and guarantee strategic stability. This is to ensure the dynamic development of the Northern Fleet, which is to play a key role in creating the A2/AD zone in the Arctic region. This is an important signal for other countries, the so-called Arctic Five – Canada, Denmark, the USA and Norway, because this pole does not have a defined legal status and, according to some experts, the so-called the Law of the Sea from 1982 applies in these areas (Kasprzycki, 2019). The fight for the Arctic is, on the one hand, a rivalry to control the huge deposits of gas and oil, the value of which is estimated at 10 to 15% of the world's natural gas worth and 30% of oil. There are also rich deposits of rare minerals (zinc, manganese, lead, platinum, gold) in this area (Zaleski, 2014). Russia is in the lead in the race so far, as it has long been preparing to take control of the deposits, training, first of all, special commando units (the so-called white army specialized in combat on the glacier). In addition, as early as 2004, a special office was established within the Federal Security Service to pursue the Russian interests in the Arctic region. Russia already has a powerful navy in this region and has been carrying out military maneuvers in this area for a long time. The Russian military units stationed in the Arctic are subordinate to the Combined Strategic Command North. It was established on December 15, 2014, primarily based on the combat potential of the Northern Fleet (Gawęda, 2018) and is responsible for defending the northern flank of the Russian Federation, including all of the Russian islands in the Arctic Ocean, stretching from Murmansk to Chukotka. The command includes the maritime component (surface and underwater), naval aviation, marines, coastal defense forces and anti-aircraft defense (Gawęda, 2018). The core of the forces consists of tactical unions, troops and subunits of the Northern Fleet: the NF command and the surface ships and submarines units, naval aviation, coastal missile defense brigade, electronic warfare sub-unit, communication hub, special reconnaissance unit, anti-diversion units, security and support units, etc. (Milkavkaz, 2017). The staff of the Northern Fleet consists of approximately 80,000 people. It has

81 warships and several dozen security and support ships (Dąbrowski, 2018; Russianships, 2018). As part of strengthening the position in this area, in 2017 alone, over 100 facilities were commissioned for military use in six bases in the Arctic region, located mainly in the Franz Josef Land archipelago. On one of the islands of the archipelago, work is currently underway to expand the existing Nagurskoye base. Among other things, 2,500 meters of the runway will be commissioned there, thanks to which MiG-31 fighters and Su-34 multi-role

Russia Fortifying Bases in Arctic Region



Figure 4. Russia Fortifying Bases in the Arctic Region

Source: <http://www.heritage.org/global-politics/report/nato-summit-2016-time-arctic-strategy>

tactical bombers will be able to operate from there (Śliwa, 2015). Similar work is being carried out on the Novaya Zemlya archipelago. In turn, about 30 military and social facilities are to be commissioned at Cape Schmidt, and a similar number is to be commissioned on the Wrangel Island (Figure 4). In order to facilitate communication with these bases by sea, Russia is building LK-60Ya nuclear icebreakers, which are to be delivered to the Navy as early as 2021. In addition, Russia is pressing the UN to grant it rights to additional 1.2 million square kilometers of Arctic surface.

Some of these Arctic bases have the 9K330 Tor air guided missile systems and the Mil Mi-8AMTSh-VA24 helicopters specially adapted for Arctic operations. In turn, in the region of the Kola Peninsula and the Barents Sea, the Pantsir and S-400 anti-aircraft missile systems have been deployed, and airfields have been prepared for airplanes. Russia also conducts major military exercises in the Arctic.

Summing up, the facts cited above clearly show that Russia treats the Arctic region as a priority. Undoubtedly, it is one of the key points of the Russian A2/AD strategy, which includes specific actions taken in relation to the areas beyond the Arctic Circle, although it is impossible to indicate the motivation behind Russia's actions. We can only guess; however, there are several basic possibilities.

5. CONCLUSIONS

With the A2/AD capabilities developed more and more by Russia, the threat to the countries constituting NATO's Eastern Flank is growing. The main idea adopted by Russia is to build a kind of defensive umbrella of specific operational areas (theaters), which give the opportunity to control the most important regions and block the freedom of action of the NATO forces, including the United States. With regard to NATO's Eastern Flank, including Poland, the Kaliningrad Oblast and the Baltic Sea are of key importance, as these are the areas from which the main threat to the countries in this region, including Scandinavia and Central Europe, may arise. Of course, from the point of view of NATO's limited operational capabilities, this poses a threat to the entire Alliance.

From the geostrategic point of view, the Kremlin's actions in both the Black Sea and the Baltic Sea are undoubtedly of key importance for the control of the Russian trade and shipping. In this regard, the saturation of the operational areas important for Russia with modern weapon systems means that it may take control of the above-mentioned regions in the event of an armed conflict in the near future.

Bearing in mind the analyzes carried out, it can be concluded that Russia currently has a conventional potential that is sufficient to effectively conduct military operations in the post-Soviet area and in the neighboring countries. The possibility of Russia's potential use of tactical ballistic weapons, including those with nuclear warheads, to isolate the post-Soviet space and the countries of NATO's Eastern Flank seems particularly threatening.

It should also be noted that the Russian request to move the boundaries of the continental shelf is still under consideration at the United Nations, and the advancing militarization of the Arctic may mean that, in the event of a settlement unfavorable to Russia, it may start to pursue a *fait accompli* policy, occupying the disputed areas, which could provoke appropriate steps by other countries. In addition, Russia can test NATO's cohesion in this way and the willingness of its members to take advantage of Article 5 of the Washington Treaty. This

may take place in conjunction with an attempt to shift the arms race to a path favorable for Russia, because so far, only Russia has the appropriate technologies to create the A2/AD zone and a large amount of various equipment and weapons that can operate in Arctic conditions.

The basis for building the capacity to counteract the Russian A2/AD is appropriately shaping awareness within NATO and incurring (even greater) financial outlays by its members for the technical modernization of the national armed forces. Only after the qualitative transformation of the armed forces in several countries will it be possible to achieve the ability to counter the Russian A2/AD.

In addition, the regulations establishing a military “Schengen” zone should be implemented as soon as possible. This solution seems necessary because the current negotiation process concerning the rules of the movement of the allied forces in the allied territories, in the event of a dynamic conflict, may significantly extend the reaction time of NATO forces. It also seems necessary to intensify the exercises aimed at testing the Alliance’s ability to counter the Russian A2/AD. The possibility of permanent deployment of NATO air defense systems in the territory of the Eastern Flank countries should also be taken into account. This would make it possible to eliminate the enemy’s potential air advantage, creating a zero-sum situation (significant difficulties in the airspace for both sides of the conflict).

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