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How to Respond to Anti-Access/Area Denial (A2/AD)? Towards a NATO Counter-A2/AD Strategy

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Key Findings

A2/AD is not a new concept, but has now reached a new stage of development with Russia's aggressive posture. A2/AD is a strategic issue for Euro-Atlantic security, creating a conceptual continuum between, on the one hand, hybrid tactics and, on the other hand, nuclear sabre-rattling. Moscow uses this as a means to challenge the West at every level, from tactical to strategic, first along Russia's borders and now, possibly, in Syria. However, does that mean that Russia has achieved an irreversible A2/AD advantage over NATO? Is this an asymmetric capability that, in a war, NATO would find extremely difficult to cope with or defeat?

From NATO's perspective, the question is the extent to which A2/AD strategies can be seen as only a technological and military challenge (the possibility for Russia to generate this "bubble" where and when it wants) , or as a political one (can NATO properly protect its territory next door to Russia?). If A2/AD is a policy challenge, it questions NATO's posture: should NATO go for more nuclear deterrence, to place greater pressure on Russia and deny any incentive to escalate? Does countering Russian A2/AD mean raising the costs of any military action by Moscow against a NATO member in denying Russia the ability to conquer NATO territory? Or is it a technology-driven challenge with a greater emphasis on bridging NATO's capability gap? Identifying the right question is as necessary as imagining the right response, which means strengthening NATO's reassurance measures, whilst putting in a different perspective the permanent stationing of NATO troops in the Eastern member states.

Will a response to A2/AD be an outcome of the upcoming Warsaw Summit? As being permanently able to reinforce and guarantee the security of the Baltic States is a key issue, there is a correlation between the geographical and technological aspects of counter-A2/AD. Is there a risk of an excessive focus on A2/AD, rather than integrating it with broader considerations on Russia's military and nuclear strategies, Russia's hybrid warfare practice, and implementation of the RAP?

From a capabilities standpoint, there is a role for including in the current NATO Defense Planning process some additional capacities that member states lack, such as suppression of enemy air defences, airborne electronic warfare, anti-submarine warfare, and maintenance of air superiority.

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Introduction

On 31st December 2015, Russian President Vladimir Putin signed an updated national security strategy describing NATO's expansion as a threat to the country.² The content of this document, while not entirely new (the last Russian Defence White Paper was published in 2009, and an update is due every six years), gives formal expression to the results of the continuing tensions between Russia and the West since the start of the Ukraine crisis in 2014. The new document is also complementary to the current Military Doctrine, published on 25th December 2014. Both these texts focus on the Kremlin's will to restore prestige and influence over Russia's post-Soviet neighbours; both present a country feeling threatened by the US and its allies. And to restore lost leadership and prestige, as well as to avoid the expansion of NATO and American military infrastructure towards Russian borders, Russia refuses to back down – as its foreign policy shows.³

Aware as it is of its limits and weaknesses, Russia might henceforth develop new ways to deter and confront NATO and US forces. In July 2015, the release of Moscow's new Maritime Doctrine to 2020 underlined courses of action to strengthen Russia's position as a maritime power, despite serious challenges. In this particular case, the Russian navy is struggling to re-enter the "blue water club" and exploring alternative solutions. The adoption of "asymmetric means of warfighting" and the "art of sea denial" translate into the build-up of an "arc of steel" between the Arctic and the Mediterranean, via the Baltic and Black Seas, resembling China's Anti-Access/Area Denial (A2/AD)⁴ approach to the South China Sea.

This brings us to the new buzzword and acronym that has been high on the US agenda in recent years: "A2/AD" has been a convenient acronym to describe the challenges to American military power projection in the Western Pacific, and especially the development by China of key capabilities that could (and most probably would) threaten US and allies' bases in the region and endanger US naval operations within the "second islands chain."⁵ However, a thought-provoking paper argued some months ago that anti-access challenge is "not merely an Asian affair" and that, in Europe, Russia has developed a set of options enabling it to interdict access to nearby seas and skies in wartime. In 2015, Russian military activities peaked to an unprecedented level since the Cold War, and with them the possibility of seeing NATO's freedom of movement challenged or disrupted, especially in the regions where Russia and the Alliance have conflicting interests: the Baltic Sea, for instance. The narrow corridor connecting Poland with Lithuania — the so-called "Suwalki gap" — appears to be the only land link between "mainland NATO members" and the Baltic States and it could, potentially, be cut off, thus challenging the Alliance's ability to reinforce its military presence in these countries during a crisis, other than by air or sea.⁶

Thinking about A2/AD is therefore extremely timely: far from being only a techn(ological) issue, the topic has broader political implications. A thorough understanding of what A2/AD means thus requires not only a focus on the obvious military aspects and capabilities that constitute the "tip of the iceberg." It calls for a comprehensive analysis of NATO member states' capabilities to maintain their strategic and technological edge, and to guarantee freedom of movement and of access in the Euro-Atlantic area. However, as the use by Russia of A2/AD is also taken into account, this means looking in greater detail at how NATO is able to effectively deter and prevent Russia from establishing this shield and using it.

2 BBC News, *Russia security paper designates Nato as threat*, 31 December 2015, <http://www.bbc.com/news/world-europe-35208636>. Past strategic documents used to term US and NATO as dangers – in Russian parlance, a danger is a concern – whilst the word "threat" indicates that an issue could spark conflict.

3 Olga Oliker, "Unpacking Russia's New National Security Strategy", *Center for Strategic and International Studies*, 7 January 2016, <http://csis.org/publication/unpacking-russias-new-national-security-strategy>.

4 Vidya Sagar Reddy, "Russian Navy Reads the Art of War", *CIMSEC*, 25 November 2015, <http://cimsec.org/russian-navy-reads-art-war/20153>

5 This is the theory developed by Aaron Friedberg, *A Contest For Supremacy: China, America, and the Struggle for Mastery in Asia*, New York, W. W. Norton, 2012. Iran can also be mentioned because of its own, specific A2/AD posture in the Gulf that has been a source of concern to the United States and others for many years.

6 Richard Fontaine and Julianne Smith, "Anti-Access/Area Denial Isn't Just for Asia Anymore," *Defense One*, 2 April 2015, <http://www.defenseone.com/ideas/2015/04/anti-accessarea-denial-isnt-just-asia-anymore/109108/>

On 19-20 January 2016, the NATO Defense College (NDC) and Istituto Affari Internazionali (IAI) hosted a workshop entitled “*How to respond to Anti-Access/Area Denial (A2/AD)? Towards a NATO counter A2/AD strategy.*”⁷ Participants included academics, experts and practitioners from NATO bodies and member states, coming together for an in-depth discussion and analysis of prospects for Alliance’s response to A2/AD strategies. The Workshop was divided into four discussion sessions: 1) the origins of the A2/AD concept; 2) Russia, its strategy, military modernization and its A2/AD capabilities; 3) case studies and possible scenarios; and 4) the possible way ahead for NATO and its adaptation with a view to countering A2/AD. This report of the Workshop provides insights from each of the subject areas and includes practical recommendations for national and Alliance consideration.

A2/AD: Continuity or Innovation?

As is often the case with fashionable concepts, A2/AD lacks a clear definition and, if loosely used, it could lead to possible misunderstandings. In the case of A2/AD, the combination of anti-access and area denial refers to “warfighting strategies focused on preventing an opponent from operating military forces near, into, or within a contested region.”⁸ However, whilst some might label it as a new reality or analyse it as a major trend, this concept has a long history: as a matter of fact, denying an adversary any chance to operate close to one’s centre of gravity is the key task of a defender. To follow on with Tangredi’s definition, “the objective of an anti-access or area denial strategy is to prevent the attacker from bringing its operationally superior forces into the contested region or to prevent the attacker from freely operating within the region and maximizing its combat power.”⁹ If using the official US definition presented in the AirSea Battle concept, rebranded in the guise of the Joint Operational Access Concept (2012) and the newly rechristened “Joint Concept for Access and Maneuver in the Global Commons,” “anti-access” defines the actions and capabilities – usually at long range – designed to prevent forces from entering a region, while “area denial,” usually at short range, aims at limiting an opponent’s freedom of action and manoeuvre in the operational area.¹⁰ The latter more or less applies to the history of war, from repulsing invasion to defending one’s territory. History is filled with the examples of fortresses, long walls, and coastal defences conceived and built to keep a threat at bay – even if, nowadays, it is more specifically the Air Force and Navy that identify with this concept. In addition, A2/AD entails a question of scale, as only states seem able to incorporate it into their overall strategy so as to “prevent the penetration of forces [...] that might challenge attempts to consolidate or maintain internal control.”¹¹

Even in the early 20th century, it was already possible to observe a combination of continuity and change that helps explain the topic’s subsequent rise to prominence. First, A2/AD seems to be mainly pursued by states that have little or no naval power: the idea is to repulse and keep out maritime forces that could break through and land. The traditional measure is to build coastal defences, to fortify harbours and develop some in-depth defences that would avoid any deep penetration of one’s territory. This reaction of continental states to counter projection from the sea onto their shores greatly benefited from the technological developments that were spurred by the Great War: the example of the Turkish defence of the Dardanelles Strait in 1915 demonstrated the deadly combination of coastal fortifications and heavily mined waters, forcing the Anglo-French force to shift to an ill-fated ground invasion. The combination of minefields, barrier defence and long-range artillery was seen as an appropriate response to an invasion: if you don’t want a fleet sailing to your coast, you have to sink it before it approaches. By the same token, Germany implemented this very

7 Further information on the workshop agenda can be found at this link: <http://www.iai.it/it/eventi/how-respond-anti-accessarea-denial-a2ad-towards-na-to-counter-a2ad-strategy>

8 Sam J. Tangredi, *Anti-Access Warfare. Countering A2/AD Strategies*, Annapolis, Naval Institute Press, 2013, p.1.

9 *Ibidem*, p.2.

10 Andrew F. Krepinevich, Barry Watts and Robert Work, *Meeting the Anti-Access and Area Denial Challenge*, Washington D.C, CSBA, 2003, ii.

11 Sam J. Tangredi, *Anti-Access Warfare*. p.3.

principle in the North and Baltic Seas during World War I. The stronghold of Heligoland, combined with the construction of a lethal but relatively inexpensive fleet (torpedo boats and submarines), kept the British Fleet out of German waters and turned the North Sea into a “naval no man’s land.” World War II opened new perspectives on how to build and bypass A2/AD defences. When the Germans seized Norway and France in 1940, they were able literally to outflank the UK and posed enormous problems for the British. Japan pursued a similar goal in the Pacific: seizing and occupying islands, building strongholds all over the Ocean, that served as land-based aircraft carriers to develop an in-depth defence and increase both range and lethality. In this perspective, the attack on Pearl Harbor (7 December 1941) can be analysed as a pre-emptive strike to restrict the US Fleet’s freedom of manoeuvre by using offensive capabilities. The only problem was the sheer vastness of the Pacific Ocean, which made it virtually impossible to ensure efficient A2/AD: the Japanese were never really able to execute their planned “barrier” defence and the US were able to outmanoeuvre them. The Cold War and the development of a new category of weapons systems changed the nature of A2/AD: the Soviet Union introduced innovations that extended the range and lethality of the existing arsenal, while developing new capacities that increased the envelope over which anti-access was possible. As an example, the USSR created “bastions” for its Northern Fleet and Pacific Fleet, protected by a complex layer of long-range cruise anti-air and anti-ship missiles, to protect its SSBNs from Western nuclear-powered attack submarines. These “bastions” were an early version of A2/AD “killing zones”. However, in the event of a conflict, A2/AD would not have been very effective, as both camps were ready to sustain heavy losses and were focusing on numbers and mass to overwhelm their opponent.

China entered the club of A2/AD powers very recently. Indeed, it is often observed that the very term “anti-access/ area denial” was coined after the 1991 Gulf War, when Chinese experts noted that the success of the US-led operation *Desert Storm* was primarily due to its ability to deploy forces into theatre with little risk of hostile interference.¹² Not surprisingly, the Chinese military concluded that in the event of a conflict with the US, they had to disrupt or neutralize the American military deployment in their region. Therefore, they developed and fielded land-attack ballistic and cruise missiles which – even untested – threaten critical US air and naval facilities as far as Guam.¹³ In addition, the People’s Republic of China (PRC) increased the layers and lethality of its military capabilities, with counter-maritime resources and multivariate surface-to-air missile systems. To complete this “state-of-the-art A2/AD”, the Chinese military now extends well beyond the traditional domains of air, sea and land, with reports of possible attacks “on cyber and space targets threaten to disrupt or even completely deny multiple enablers of power projection, including but not limited to satellite communications and Global Positioning System (GPS) based navigation systems.”¹⁴

Indeed, the “Chinese model” and, more generally, the increase of A2/AD strategies in Asia-Pacific provide some key elements to better understand the nature of the challenge.¹⁵ A2/AD demonstrates the profound changes in the international technological and geopolitical environment, and ultimately casts doubt on the West’s military and technological edge. The proliferation of dual-use, cheap technologies, coupled with the emergence of key domains such as cyber and space, is more than a US concern: it characterizes the ability of major powers to maintain their power projection capabilities, everywhere and at any time. The analysis of the threat has henceforth to be put into several perspectives.

- The *strategic perspective* questions the validity of a concept that seems *strategically* defensive but *operationally* offensive. Because the same tools can be used both ways – defensive against an aggressor and offensive against a neighbour – it implies Russia taking the initiative over an

12 Stuart E. Johnson and Duncan Long (eds.), *Coping with the Dragon: Essays on PLA Transformation and the U.S. Military*, Washington D.C., Center for Technology and National Security Policy, 2007, p.73.

13 Andrew F. Krepinevich, *Why Air-Sea Battle?*, Washington D.C., CSBA, 2010, p.13.

14 Major Christopher J. McCarthy, *Anti-Access/Area Denial: The Evolution of Modern Warfare*, US Naval War College, 2010, p.4, <https://www.usnwc.edu/Lucent/OpenPdf.aspx?id=95>

15 For comparisons, see Carl Thayer, “With Russia’s Help, Vietnam Adopts A2/AD Strategy”, *The Diplomat*, 8 October 2013, <http://thediplomat.com/2013/10/with-russias-help-vietnam-adopts-a2ad-strategy/> and Robert Farley, “Should the US Proliferate A2/AD in Asia?”, *The Diplomat*, 24 October 2014, <http://thediplomat.com/2014/10/should-the-us-proliferate-a2ad-in-asia/>

opponent, to deny him any advantages. The fear of an attack could lead to unjustified escalation and maybe pre-emptive strikes at the beginning of a crisis¹⁶. The risk of escalation has to be taken seriously, especially in the case of nuclear powers such as Russia.

- From an **operational perspective**, what is the most important issue should be discussed: is it to gain permanent access by establishing superiority over an operational area, or is it dominance of the key point? Likewise, what happens after “cracking the nut” or defeating the “A2/AD bubble”? Where should we put our efforts? How do we join up the dots between initial entry and the follow-on phases? Some argue that thinking about breaking the bubble is one sure way to escalation, and that care should be taken to avoid overreaction.
- From a **military and industrial perspective**, A2/AD could also bolster additional investments in new capabilities and make it possible to maintain a technological edge by exploring every possible means to face off future competitors. This was the expectation of the proponents of the RMA in the 1990s, which was then established as a core element of US military strategy for countering China. However, A2/AD today also explores the possibility to increase the opponent’s costs of developing new equipment and materiel – the equivalent of a new “arms race” that would exhaust China and reassure US allies. Incidentally, the massive costs involved in A2/AD do challenge the ability of other countries (e.g. European NATO members) than the United States to afford the “bright and shiny” objects.
- From a **bureaucratic perspective**, A2/AD can be seen as a way to rebalance the size and importance of the single services. The overwhelming importance of ground forces as illustrated by the wars in Iraq and Afghanistan led others to use the “strategic pivot” as a measure to rebalance between the Army, Navy and Air Force. One can recall the strong reaction from the US Army with regard to the AirSea Battle concept, which left it feeling sidelined by a rebalancing toward mainly air and maritime operations.
- From a **political perspective** finally, many analysts are concerned about the possibility of triggering a “self-fulfilling prophecy of confrontation” against a designated country, be it China or Russia. The rise of the Russian Federation among the possible threats to US security is also an issue, with risks of escalation and a return to a “Cold War” mindset.

As a concept, A2/AD is not new. Nevertheless, it must be examined in the context of both domestic debates and changing diplomatic posture. From a purely technological standpoint, it might not even be the ultimate game-changer, as it seems only to increase the scope for use of already existing systems, while deriving maximum advantage from connecting weapons and technologies so as to create overlapping layers protecting a space, an area or a territory. In a changing environment, proliferation of cheap systems could help establish local AD bubbles by hindering, rather than really preventing, tactical deployments; however, becoming an “A2/AD power” entails overcoming a lot of difficulties and thresholds, not least in terms of investments and infrastructure. Accordingly, A2/AD remains very much a “state-vs.-state” notion, where actors behave rationally: A2/AD is only applicable to a limited conflict, because the risk of escalation (particularly nuclear) would make any cost-benefit analysis useless.

Russia, its strategy, military modernization and A2/AD capabilities

The historical and current emphasis on A2/AD also challenges the ability of a power like Russia to be as effective as China in this domain. According to some specialists, an A2/AD strategy requires four key elements:

- strategic depth and space for manoeuvre;

¹⁶ The analogy with the Cold War is evident, especially with the crisis of the EuroMissiles in the early 1980s.

- sufficient land bases;
- multi-dimension capabilities through the subsurface, surface, air, space and cyber domains, as well as a strong Intelligence Surveillance Reconnaissance (ISR) capacity;
- favourable geography.

At first glance, Russia might pose a threat in six maritime areas, namely (from North to South and West to East) the Arctic Sea, the North Atlantic Ocean, the Baltic, the Black Sea, the Mediterranean Sea and the Pacific Ocean, with several challenges to overcome. The geographic factor alone calls for careful analysis, which considers every threat unique and different, regardless of the systems deployed. A cursory glance at Russian geography underlines some key vulnerabilities, such as the Kaliningrad enclave or the country's landlocked situation. Indeed, if Russia controls 7% of the coastline in the Baltic, 50% of its global maritime trade goes through the Baltic Sea.

In addition, when it comes to capabilities, the cost of deploying A2/AD is high. Of course, publically announcing the deployment of missiles in different operational theatres can also be regarded as a way to showcase worldwide military equipment produced by Russian industries, to affirm the enduring support of Russia to its allies and challenge the Western powers. The Russian operation in Syria led some US and NATO officials to point out the existence of a layered and very capable "anti-access/area denial" system that could complicate US and allied operations in Syria "and well beyond."¹⁷

Again, the threat of deploying A2/AD capabilities makes sense only in the broader context of Russian political and military evolution during recent years. The adoption of the 2015 National Security Strategy out to 2020 highlights the Kremlin's assessment of the risks and opportunities ahead. While depicted as more extreme than the previous strategic document published in 2009, it focuses on Putin's and Russia's main concerns: the current situation in Ukraine, seen as the result of NATO's and the US' involvement in Russia's domestic affairs and of long-standing efforts at destabilization with a view to imposing Western dominance, and more generally the fear of "colour revolutions" in post-Soviet states spilling over into Russia's backyard. This "strident language [...] and tone reflects Russia's new antagonisms with the West, but the underlying strategy is the same,"¹⁸ while the situation at home has slowly but surely grown worse.

Several experts point out continuing tensions between Russia and the West over Ukraine's future, despite the Minsk 2 agreements; Russian violations of allied airspace over Turkey, which led to the downing of a Russian bomber on November 24, 2015 by the Turkish military; and almost one third of Russia's state budget spent on military and security expenditure. Yet, the Russian situation is tense internally; public finances depend heavily on exports of natural resources – oil and gas mainly – and the 2016 budget projects the average price of Urals oil (its key export) at \$150 per barrel. With an oil price baseline of \$30 per barrel and even below, the country's deficit is expected to increase dramatically in the coming months. Further cuts in administration and related expenditures (with 10% budget cuts in 2015, and possibly a further 10% in 2016), with multiple technical defaults by regional authorities and the spending of available monetary reserves by the end of 2016, are to be expected; meanwhile, the political commitment of rebuilding the Crimean economy is a bottomless pit in economic terms. If one adds the EU economic sanctions that, after almost two years, are starting to really hurt the Russian economy, the situation is far from ideal for the Kremlin.

However, Putin still has a number of strengths. The situation in Ukraine and the long-term instability directly resulting from the Russian presence might unfold into a military stalemate and an almost frozen conflict

¹⁷ Sydney J. Freedberg Jr., "Russians In Syria Building A2/AD 'Bubble' Over Region: Breedlove", *Breaking Defense*, 28 September 2015, <http://breakingdefense.com/2015/09/russians-in-syria-building-a2ad-bubble-over-region-breedlove/>

¹⁸ Mark Galeotti, "Russia's New National Security Strategy: Familiar Themes, Gaudy Rhetoric", *War on the Rocks*, 4 January 2016, <http://warontherocks.com/2016/01/russias-new-national-security-strategy-familiar-themes-gaudy-rhetoric/>

that could keep the European Union and NATO busy for a long time, while preventing the Kyiv government from becoming more integrated into the West. From a geographical standpoint, some “hot spots” attract Western leaders’ interest. Russia has concentrated most of its A2/AD capabilities into several “bastions” that are a response (and a threat) to regional security. The existence of a “Northern strategic bastion” around the Kola peninsula has long been known and, with the occupation of Crimea, Putin can proudly say that, with the deployment of A2/AD capabilities in the South, “Crimea is under safe protection.” And of course, in the Baltic area, the role of the Kaliningrad oblast has attracted lot of comment, especially with the increasing militarization of recent years: airfields have been refurbished, the Baltic Fleet has received new vessels, the army and naval infantry brigades have been fully manned and batteries of S-400 air defence missiles plus Iskander systems have been deployed. As Kaliningrad has borders with Poland and Lithuania, and could potentially threaten NATO reinforcements sent by land through the corridor between Kaliningrad and Belarus (the so-called “Suwalki Gap”), it poses a real problem to NATO.¹⁹ Finally, Putin can also wave the flag of a “resurgent Russia”, while threatening the possibility of using its nuclear arsenal.²⁰ In this sense, Russian A2/AD aims at creating a buffer zone to defend the Russian territory, protect its interests and safeguard its borders.

A2/AD will surely, henceforth, be part of the complex game Putin is playing to influence Western leaders and secure their acknowledgement of his role and of Russia’s place on the world chessboard. The deployment of A2/AD capabilities can also be seen as a show of force and intimidation. The Syrian case study is emblematic in this regard, as several analysts consider Russia’s involvement in Syria as a demonstration of the ability not only to build up a robust air defence bubble, but also to conduct expeditionary military operations. From a tactical and operational view, Russia has significantly expanded its presence in Syria since September 2015, first and foremost to save the Assad regime from military defeat at the hands of the rebels. According to *Jane’s*, the Syrian government regained ground due to the Russian military support; although modest, “the gains represent a turnaround in the government’s position” and Russia’s operation helped the government forces to retake the initiative.²¹

The Russian A2/AD threat was very limited until the downing of the Russian Su24 by Turkish fighters on November 24. Initially, Moscow had deployed “a mix of upgraded Soviet aircraft and the latest and greatest in Russian aviation, totalling 12 Su-24M2s, 12 Su-25SMs and Su-25 UBMs, four Su-30SMs, and six Su-34s,” with other rotary wing²² platforms. To protect some of its ground assets, there were early signs of the deployment of anti-access systems, such as Pantsir-S1 air defence systems, around the air bases at Latakia as well as Tartus. Equally, in early November 2015, rumours even spread of possible deployment of S-300 missiles. After the shooting down of the Russian aircraft, the build-up of the A2/AD bubble became a reality. First, Russia put new measures in place to protect its air assets. One of the first options was to have Su-30SM flankers escort the bombers during their missions against ground targets. In addition, the Su-34s were equipped “not only with high explosive aviation bombs and hollow charge bombs, but also with short- and medium-range air-to-air missiles [...] for defensive purposes”, according to a spokesperson of the Russian Ministry of Defence.²³ The deployment of S-300 and at least one S-400 SAM battery was officially announced, while the cruiser *Moskva* and its lethal S-300F Fort anti-air systems sailed off the coast of Syria and provided cover for Russian sorties. Ultimately, the display of particular capabilities such as the long-range bomber strikes, and the cruise missiles shot from the Caspian Sea, can be seen as a test.

19 Kaliningrad can also be understood as a strategic dilemma for Russia, as this enclave is heavily dependent on critical infrastructure located outside its territory, for instance the gas pipelines that go through Lithuania. In addition, Belarus is at best an ambiguous ally and, in the event of a military confrontation, no one could be sure that this alliance would remain firm.

20 Something which the oligarchs and first circle of counsellors don’t want, as they allegedly believe that the economy is the priority. Economic deterrence is far more effective and, by the end of 2016, the Russian economy will be smaller than that of New York City.

21 Columb Strack, “Syrian government territory grows by 1.3% with Russian military support”, *IHS Jane’s 360*, 21 January 2016, <http://www.janes.com/article/57402/syrian-government-territory-grows-by-1-3-with-russian-military-support>

22 Michael Kofman, “Russia’s Arsenal in Syria: What Do We Know?”, *War on the Rocks*, 18 October 2015 <http://warontherocks.com/2015/10/russias-arsenal-in-syria-what-do-we-know/>

23 Russia Today, *Russia arms Su-34s with air-to-air missiles in Syria for 1st time*, 30 November 2015, <https://www.rt.com/news/323992-russia-syria-air-missile/>

In the Syrian case, A2/AD takes on a very strong political aspect. From Moscow's point of view, the whole Syrian operation is an opportunity to create a fresh basis for relations with the West in general and the US in particular. By supporting Assad's forces and choosing sides (striking the rebels rather than Daesh), Putin could re-engage the West from a position of strength as the sponsor of the only strong local alternative to the Islamic State. It looks as though Russia has neither the will nor the means to establish a long-term presence in the Middle East, but at least the current operation is inexpensive (between 6 and 10 million USD a day, depending on the strikes), sustainable, and could have some critical success at the tactical level (with Assad's forces gaining key positions). At the strategic level, while the "bubble" forbids the West to try to force Assad to leave without a risk of escalation, it leaves the Russians in a position to decide for the West. In clearing the opposition, the anti-ISIS coalition might end up with having to make a choice (where really there is none) between Assad and Daesh.

A2/AD: an operational perspective

To quote SACEUR: "as an alliance, we need to step back and take a look at our capability in a military sense to address an A2/AD challenge [...] This is about investment. This is about training."²⁴ More generally, it is about NATO nations being able to understand the Russian strategy, so as to avoid being outmanoeuvred at operational level, and plan for both the most likely and the most dangerous scenarios as best they can. From a practitioner's perspective, this calls for aligning the strategies of the individual services and planning according to the evolving threat, mitigating the risks and proposing alternative courses of action.

In the case of A2/AD, two elements have to be addressed:

- "Anti-access" (A2) refers to the strategy that limits entry/posturing, using whatever means are needed to complicate and challenge access by the opponent's forces;
- Area Denial (AD) works at the tactical/operational level, minimizing freedom of manoeuvre and in-theatre movements.

A2/AD thus challenges freedom of movement and action within critical domains and areas of responsibility. From a naval perspective, for instance, it means that Russia uses its geography and capabilities to deny (but in reality, to set a limit on) NATO's naval power projection capabilities.²⁵ The same goes for air forces, as has already been seen over Syria. In another dimension, massive cyber-attacks could prevent NATO forces using a port or airport to disembark, or disrupt the use of critical infrastructure, which would again further complicate allied freedom of manoeuvre, especially given NATO's still ongoing efforts to achieve a common policy in the cyber domain.

A2/AD puts several new issues on the table and can be seen as a true "clash of wills," where rhetoric has to be accompanied by a significant posture. This goes far beyond a "talk softly and carry a big stick" policy, as it is about possible NATO casualties: if one understands A2/AD as a defensive posture, it also means that the "attacker" has to be ready to take some risks – and have the political stomach to do so – when entering the A2/AD bubble. For example, the last two decades have seen NATO air forces operating in permissive (Afghanistan, Kosovo) – or at most semi-permissive (Libya) – environments. Moreover, whether by land – Russia even offered some transport agreements for most of the ISAF campaign – or by sea, NATO forces have been accustomed to unlimited and almost unchallenged access to operational theatres.

²⁴ Sydney J. Freedberg Jr., "Russians In Syria Building A2/AD 'Bubble' Over Region: Breedlove."

²⁵ For the followers of Mahan and Corbett, the concepts of "sea control" and "sea denial" are not mutually exclusive. Indeed, sea control implies sea denial, but sea denial does not mean sea control. In the case of Russia, the country is practically landlocked, as its exit routes to "warm waters" have to cross chokepoints (for instance, to reach the Mediterranean Sea from the Black Sea, Russian shipping has to cross the Dardanelles Strait).

The build-up of A2/AD could thus be seen as a step back, in terms at least of access to operational theatres, to the Cold War period. The establishment of an “un-permissive environment” has several implications: targeting would be denied or challenged, mass and concentration would be needed to reach the same level of efficiency, risks would increase massively, and casualties would be higher among NATO militaries and local civilians. All of this calls for a careful cost-benefit assessment in dealing with A2/AD, starting at the political level. For instance, the risks of allied casualties or collateral damage have a profound impact on the level of domestic and international support for NATO missions, and A2/AD capabilities would seriously challenge any NATO military advantage – for example, by GPS jamming or radar denial, keeping allied ISR at bay, rendering intelligence less effective and thus leading to potentially tragic error. Finally, in the case of Russia, A2/AD is not just based on a number of “bastions,” it is all over the country – from north to south, in a layered, integrated and mobile configuration. This challenges NATO’s ability to be equally effective and deployable, from north to south, across the European continent.

Indeed, one key issue is the incapacitating combination within NATO of scarcity of forces (both equipment and deployable personnel), scarcity of enablers and scarcity of will. One can compare this with what has now become the norm for Russia, where a variety of exercises – “snapshot inspections” and others – are integrated into a long-term strategy. The use of hybrid tactics and acts of war below the threshold of an Article 5 response are also a great concern, as the Alliance could find itself faced with a *fait accompli* without even having had the opportunity to react. In the event of an attack over the Baltic States, Russian A2/AD capabilities that would be activated in the region could block NATO reinforcements, thus further complicating the Alliance’s task. If denied access by air or sea, the only possibility would then be by land, which fuels additional complexities and intricacies. It is a true administrative nightmare to direct forces from a sea port of disembarkation – in West Europe – to its staging area: it takes literally weeks to cross international borders, obtain diplomatic clearances and use rail and/or road links to progress from point A to point B. Again, while measures and tools existed during the Cold War (namely the ACTICE and ACTIMED bodies), most of them have been either dismantled or at least frozen.

NATO has already agreed on a number of measures to be taken as a rapid response to activities below the Article 5 threshold. Understanding A2/AD and Russia’s way of waging hybrid war are two sides of a same coin. The enhanced NATO Response Force (eNRF), the call for better intelligence sharing and the extension of attribution to SACEUR so as to ensure an adequate reaction are among the measures, short of war, that prevent escalation and effectively (re)assure allies. To quote Eisenhower, this goes beyond having plans, it is about planning: war scenarios simplify military planning and help set the mind straight and prepared for the unknowns.

NATO’s way forward: policy and capability

At this stage, one runs the risk of falling into a diplomatic and military conundrum: if A2/AD is by nature a defensive measure, and with NATO being a defensive Alliance with no intention of invading Russia, where is the problem? Yet, Russia’s aggressive rhetoric and its actions over the past eight years in its close neighbourhood, from Georgia to Ukraine, coupled with Moscow’s historical fear of encirclement, make the risk of escalation a reality. Since Russia has developed and deployed systems – whether in the Kaliningrad Oblast or in St. Petersburg – that cover a wide range of Allied airspace, NATO’s freedom of action is challenged. On the other hand, the debate can easily be reversed in arguing that Russia feels as threatened by NATO as NATO by Moscow, as seen in the lasting discussions over the nature and purpose of the Ballistic Missile Defence shield. At the end of the day, the underlying issue is the ability to stay ready for the remote likelihood of an armed conflict, in order to make it even more remote: that is the paradoxical meaning of deterrence. What is at stake is not only the freedom of access to every territory in the Alliance, but the possibility of reinforcing Allies when they are under threat. When all is said and done, NATO’s core

task – indeed, its very *raison d'être* – is collective defence, namely the Alliance. A2/AD, by raising the cost of reinforcing Allies, undermines the Alliance's political decision-making and potentially hampers NATO's ability to exert collective defence as well as the credibility of its deterrence.

Operational, purely military adaptation does not mean that it is irrelevant to think about other options which make more sense politically. The bottom line here is to ensure that the Alliance can effectively deter Russia from employing the full range of its capabilities and tactics against a NATO member. From an Alliance perspective, it is equally important to think about how NATO nations and NATO as a whole can be more effective and resilient. Some responses have already been put forward, in the year and a half since the Summit in Wales.²⁶ In essence, these responses to hybrid warfare are to a certain extent a question of deterring the establishment of an A2/AD bubble.²⁷ The focus is on improving fighting ability at local and Alliance levels, bolstering NATO forward presence to ensure that any Russian attack will encounter resistance by troops of all 28 NATO nations – thus increasing the political cost of any such attack to an unaffordable political level. NATO troops would be a “tripwire”, making any aggressive actions Russia's responsibility.²⁸ The recent announcement that the US would ship armour and heavy equipment to Central Eastern Europe is also a strong signal to President Putin that “the West remained deeply suspicious of his motives in the region.”²⁹ The goal is to ensure that the consequences of any infringement or act of trespassing would be so evident as to force Russia to act in broad daylight. This is the basic application of the principle of “deterrence by denial” – denying the other side any chance of an easy success, achieved by covert actions below the threshold of Article 5.

Another possibility would be for NATO to take coercive measures in other zones or regions than those primarily concerned: in the event of Russia continuing its covert expansionism in Ukraine and around the Black Sea, NATO could decide to temporarily blockade the Baltic Sea – even if a maritime blockade would most certainly be considered as an act of war. This “horizontal escalation” would complicate Russia's calculus, but could also lead to a downward spiral which would leave little room for dialogue and progress towards a political settlement. In addition, supporting this course of action requires strong political commitment, at a time when some NATO member states are advocating the lifting of economic sanctions against Russia and emphasizing the need to reduce misperceptions.

However, the nature of the threat also provides a strong incentive to think ahead in terms of capabilities. Countering A2/AD requires that NATO nations organize their efforts more effectively. At the Wales Summit, Alliance members took the Defence Investment Pledge – i.e. a commitment to spend 2% of national GDP on defence. And for once, results are encouraging, with at least 16 member states having increased their defence expenditure.³⁰ In particular, the vast majority of European countries have decided to increase their defence spending in 2016 – even if there is no guarantee that the trend towards the “demilitarization” of Europe will be reversed.³¹ To stay the course, NATO has particularly to focus on taking all the necessary measures to promote, develop, deliver and implement interoperable military capabilities. Again, nothing is really new, and NATO's history is paved with capability and interoperability initiatives – not always successful. Yet, A2/AD stresses the need for NATO nations to acknowledge that the Alliance's superiority in a number of domains could be challenged. Air superiority is one key example. So, too, are mobility and

26 For understanding NATO's adaptation in the recent months, see an overview in Guillaume Lasconjarias and Jeff Larsen (eds), *NATO's Response to Hybrid Threats*, Rome, NDC Forum Papers 24, 2015; on NATO perspective see Fassi E., Lucarelli S. e Marrone A. (2015), *What Nato for what threats?* Norfolk: NATO, December 2015.

27 Even if one can hardly convince Russia to renounce the build-up of these capacities over its own territory.

28 NATO being a defensive alliance, what is at stake is the ability of NATO allies to attribute responsibility over certain types of attacks (for instance cyber-attacks or covert operations).

29 Mark Landler and Helene Cooperfeb, “U.S. Fortifying Europe's East to Deter Putin”, *New York Times*, 1 February 2016, http://www.nytimes.com/2016/02/02/world/europe/us-fortifying-europes-east-to-deter-putin.html?ref=world&utm_source=Sailthru&utm_medium=email&utm_campaign=New%20Campaign&utm_term=%2ASituation%20Report&_r=0

30 According to NATO Secretary General's Annual Report 2015, http://www.nato.int/cps/en/natohq/opinions_127331.htm

31 See Alessandro Marrone, Olivier De France and Daniele Fattibene (eds), *Defence Budget and Cooperation in Europe: Developments, Trends and Drivers*, IAI, January 2016

rapid deployment of troops and equipment across the Alliance. Still, the air component is the prime enabler for quick reaction and force projection: when NATO had to react to Russian aggression in Ukraine, one of the first moves was to send one airborne company into each NATO member state bordering Russia. In addition, to be able to effectively deter A2/AD or hybrid strategies, the Alliance has to rely on adequate intelligence, and intelligence sharing. The goal of establishing a permanent, multi-layered Joint Intelligence Surveillance Reconnaissance system, providing information to the command structure and permitting timely acquisition of quality intelligence data, is essential to effectively counter A2/AD operations.

The framework for capability development is well-known: it is the NATO Defence Planning Process (NDPP) that brings cohesion across the various strands of work. But the NDPP also has to reflect changing concerns and priorities. For the past two decades, NATO capabilities were mainly orientated towards crisis management and expeditionary warfare. Today, the changing and hardening environment pushes for heavier equipment, and keeping the assets and means that would guarantee access to operational theatres. This means that a new balance has to be found between the two core tasks of collective defence and crisis management, also bearing in mind that several capabilities serve both purposes. Today, only a few nations possess the knowledge to perform Suppression of Enemy Air Defence (SEAD) and Airborne Electronic Attack (AEA), and past campaigns such as Operation *Unified Protector* proved how critical these means were and how even more vital they will be in the near future. In general, NATO should at least carefully observe the track that the US just has opened with the so-called “third offset strategy”: while the aim is to safeguard technological dominance, this might require many of the nations to punch above their weight.

Conclusion

A2/AD is by no means a new concept, but is based both on historical precedents and on new technologies that change the scale, lethality and scope of the threat. Again, even if it is nothing new, it helps understand the current nature of a threat and shape the stakeholders’ mindset. Because it raises a range of challenges, it forces academics and practitioners to envisage the notion through several concurrent lenses, be it in terms of technology, capabilities, institutional or diplomatic measures. Because A2/AD prevents freedom of manoeuvre, it is considered to be an aggressive posture; however, it can be perceived not as a permanent threat but as a permanent capability, enforcing an aggressive narrative as if it were a form of sabre-rattling. The fact that the same weapons systems can be used as an offensive or defensive asset further complicates the ability to keep a cool head.

In the case of Russia, the key issue is to understand where the A2/AD strategy fits into the holistic national security strategy. More precisely, how does A2/AD complement the use of hybrid tactics below the threshold at which possible NATO responses would be triggered? Could be it argued that A2/AD is actually overt defence, whilst hybrid attacks are covert defensive actions? If limiting the discussion to the conventional sphere, could A2/AD be nothing more than the defensive posture it is purported to be, through the build-up of bastions meant to establish the buffer zones Russia has always sought to secure for itself? In addition, how does Putin’s entourage consider and envision the costs of such an arms race?

From a NATO perspective, how can the Alliance mitigate four “UN”s: the risk of being **un**prepared, **un**able to face the **un**thinkable (or the **un**known)? The political decisions taken at the Wales Summit, involving comprehensive reassurance and adaptation measures, do constitute a first response. The troops and assets deployed by some NATO Allies in the Central and Eastern European countries have a role to play as a political obstacle – the latter-day equivalent of the Cold War “tripwire” – that effectively limits the risk of escalation. Yet, this conventional response is not enough, and other possible scenarios have to be considered and addressed: from a political and diplomatic point of view, are the Allies able to make Russia understand that NATO is strong and united enough to resist any blackmailing? By the same token, do NATO nations see A2/AD as a game changer? The capabilities needed to “break the bubble” might lead to a new arms race

and require considerable high-tech investment, creating a further millstone for defence budgets.

To effectively define a proper counter-A2/AD strategy, what is needed goes beyond owning the arsenal. Only a political response with scenarios extending over a broad geographic scope is of any real use: NATO has to prevent Russia from even thinking of using tools and means that would backfire. What is imperative is to render Moscow's strategy obsolete. The reopening of the NATO-Russia Council and the leverage created by some economic penalties could pay off; on the other hand, maintaining a forward presence, with heavy means and the whole range of the latest technological tools, would make it possible to talk softly and carry a big stick.

A2/AD is a political debate: just as was the case with the SS-20 in the 1970s, the Allies have to be able to say that these weapons and systems are not just militarily but politically unacceptable, and that the risk of escalation is created by whoever deployed these tools first. Are we back in the time of the Cold War? No. But for sure, A2/AD challenges the very basis of the conventional deterrence debate and tests the Alliance's resolve.



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