The Russian and Iranian Missile Threats: Implications for NATO Missile Defense

Azriel Bermant

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INSS
המכון למחקרי ביטחון לאומי
THE INSTITUTE FOR NATIONAL SECURITY STUDIES
INCORPORATING THE JAFFEE CENTER FOR STRATEGIC STUDIES
TEL AVIV UNIVERSITY
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Executive Summary

This paper explores in depth the ongoing controversy over the NATO ballistic missile defense (BMD) system in Europe. In previous decades, Russia had expressed objections to US missile defense systems, but was particularly unhappy with the plan of President George W. Bush to deploy a missile defense shield in Eastern Europe. Although the Obama administration scrapped Bush's BMD system in 2009, it has unveiled a BMD system of its own which Russia has continued to oppose.

The United States and NATO claim that the system is designed to deal with the dual threat of ballistic missiles and weapons of mass destruction (WMD) emanating from the Middle East. While NATO has not stated explicitly that the system is intended to defend Europe from an Iranian threat, the United States has suggested that Tehran is indeed a significant threat to the alliance, and that countermeasures are required to address this. However, Russia has never accepted this claim, and maintains that the BMD system is directed at its own strategic nuclear forces. The NATO plans to deploy BMD systems in Romania in 2015 and Poland in 2018 reinforce the Kremlin's resentment over what it perceives as Western penetration into its "near abroad."

In recent years, both NATO and Russia have explored the notion of cooperation over BMD. Indeed, this study accepts the argument presented by many experts in the field that both parties have a vested interest in working together to address the growing threat of ballistic missiles in the hands of revisionist regimes. In spite of the Kremlin's public skepticism over the threat from Tehran, there is evidence to suggest that Russia's military echelon has concerns of its own over a nuclear Iran armed with ballistic missiles, and has already taken steps to address this problem.

Nevertheless, it is likely that Russia, under the leadership of Vladimir Putin, will view the ongoing differences of opinion over BMD as means to rally support against the West, as tensions over Ukraine escalate. Indeed, the strong disagreements on BMD are part and parcel of the more general

mistrust between Washington and Moscow, related in part to Putin's anger and resentment over the legacy of NATO's expansion eastwards following the collapse of the Soviet Union. For a country such as Poland, it is the presence of US forces on its territory which constitutes the security guarantee, rather than the actual BMD system itself. This paper argues that BMD is more a reflection of the tensions between NATO and Russia than a direct cause of these difficulties.

This paper also maintains that a comprehensive agreement between the P5+1 and Iran is unlikely to have an impact on the NATO BMD system. In the unlikely event that Iran were to dismantle its nuclear program, NATO would remain concerned over its ballistic missiles and threats from other parts of the Middle East. Furthermore, as Russia reasserts its military power in its "near abroad," the United States can ill afford to withdraw its security commitments to countries such as Romania and Poland that will soon be hosting BMD assets on their soil.

In spite of the very high cost of maintaining the NATO BMD system, this paper argues that it is justified in terms of its ability to mitigate damage, provide greater flexibility for national leaders, strengthen the morale of vulnerable populations and devalue the threats posed by revisionist states. Israel's own experience in the field of missile defense reinforces the argument that defensive systems can strengthen public morale and provide a greater range of options for national leaders. BMD systems in general cannot be an alternative to deterrence, but they can certainly complement it.

Glossary of Acronyms and Abbreviations

ABM	Anti-Ballistic Missile
ALTBMD	Active Layered Theater Ballistic Missile Defense
AN/TPY-2	Army Navy/Transportable Radar Surveillance
ASD	Air Space Defense
AWACS	Airborne Warning and Control Systems
BMD	Ballistic Missile Defense
DDPR	Deterrence and Defense Posture Review
EASI	Euro-Atlantic Security Initiative
EPAA	European Phased Adaptive Approach
GBI	Ground-Based Interceptors
IAEA	International Atomic Energy Agency
ICBM	Intercontinental Ballistic Missile
INF	Intermediate Range Nuclear Forces Treaty
MDA	Missile Defense Agency
MRBM	Medium Range Ballistic Missiles
NATO	North Atlantic Treaty Organization
NSNW	Non-Strategic Nuclear Weapons
P5+1	The five permanent members of the UN Security Council and Germany
PFP	NATO Partnership for Peace
SDI	Strategic Defense Initiative
SLBM	Submarine-Launched Ballistic Missiles
SM-3	Standard Missile -3
SORT	Strategic Offensive Reductions Treaty
New START Treaty	The Treaty between the United States of America and the Russian Federation on Measures for the Further Reduction and Limitation of Strategic Offensive Arms
TMD	Theater Missile Defense
WMD	Weapons of Mass Destruction

Preface

In Israel, missile defense is an issue that has risen to prominence over the last two years as a result of the role played by the Iron Dome system in intercepting Hamas rockets from Gaza. Although Iron Dome is an Israeli system, the United States has been providing significant financial support for the project. The Americans have also been working in cooperation with Israel on the development and funding of the Arrow missile defense system which is designed to deal with a more serious nonconventional threat from Iran. Washington is working quietly with other allies in the Gulf region, in East Asia and Europe to deploy anti-missile shields that can address the growing threats of ballistic missiles and the proliferation of weapons of mass destruction in the hands of revisionist states.

The NATO missile defense shield is perhaps the most controversial of these systems, at a time of rising tensions between Russia and the West over Ukraine. This study explores the objectives behind the establishment of the missile defense system in Europe and seeks to shed light on the underlying reasons for the disagreements between Russia and NATO over this issue, as well as to highlight their significance at a time of growing concern over Iran's ballistic missile and nuclear programs.

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Introduction

In June 2013, President Barack Obama issued a rallying call in Berlin for the United States and Russia to reduce their strategic nuclear arsenals by up to one third. Moscow, however, was quick to reject Obama's declaration, ostensibly because of the US missile defense program. The differences between the United States and Russia on BMD policy are perceived by some experts as a significant factor in the growing strains between the two powers. These tensions have been further exacerbated by Russia's intervention in Ukraine during 2014, suggesting that cooperation in the wider arms control sphere and other contentious policy areas is highly unlikely in the near future.

In 1972, the United States and the Soviet Union (later Russia) signed the Anti-Ballistic Missile (ABM) Treaty which prohibited each side from possessing a national defense system protecting the entire country. For a brief period, nuclear deterrence triumphed over the concept of missile defense. The ABM Treaty was grounded in deterrence, but it sought to stabilize the deterrence relationship. By cutting BMD systems, it was believed that stability would be strengthened by halting the never-ending arms race.[1]

However, in 1983, President Ronald Reagan's Strategic Defense Initiative (SDI) resuscitated the concept of a missile defense shield on a grand scale, with a view to eventually render all nuclear weapons "impotent and obsolete." Up until this point, the Americans viewed missile defense as a means to protect themselves from the Soviet threat. However, during the first term of the Clinton administration, concerns grew over the rising threats of shorter-range rockets from revisionist regimes such as Iran, Iraq and North Korea. The Clinton administration took pains to ensure that its missile defense program was compatible with the ABM Treaty. During this period, the Russian military expressed its strong opposition to the Clinton administration's proposed missile defense program. The Russians were concerned that the combination of a US first-strike capability and a national missile defense system composed of sophisticated radars, sensors and countless interceptors

might expose them to nuclear intimidation in a crisis. In December 2001, the Bush administration announced its decision to withdraw from the ABM Treaty. President George W. Bush viewed this move as a means to abandon "the grim theory" of mutually assured destruction.[2]

The withdrawal from the ABM Treaty took effect in June 2002, with construction of BMD facilities in Alaska beginning in the same month. In 2006, the Bush administration announced plans to deploy interceptors in Poland and a missile tracking radar in the Czech Republic. While the system was designed to defend both the United States and Europe from potential Iranian long-range ballistic missiles, the Russians expressed fierce objections to the system. The Russians rejected the US claim that the interceptors were designed to deal with an Iranian threat, and warned that they would consider withdrawing from the 1987 Soviet-American Intermediate Range Nuclear Forces Treaty (INF).

In 2009, the Obama administration cancelled Bush's BMD plans for Central Europe. It is unclear whether this decision was made as a gesture to the Russians or because of difficulties with the technology of the interceptors to be deployed in Poland.[3] Instead, on 17 September, 2009, President Obama announced a new plan in four phases – the European Phased Adaptive Approach (EPAA) – designed to provide a more comprehensive, adaptable and cost-effective response to the threat of long-range ballistic missiles. The EPAA was announced with the intention of consolidating Washington's commitment to the protection of the US homeland and strengthening the defense of its NATO allies. As part of the first phase of the EPAA, missile defense-capable Aegis ships are being deployed in the Mediterranean while an AN/TPY-2 radar was deployed in Turkey. The second phase in 2015 anticipates the deployment of more advanced ground-based interceptors in Romania to counter short and medium range missile threats. The third phase anticipates the deployment of more advanced SM3-Block IIA interceptors in Poland in 2018 to counter short, medium and intermediate-range missiles. A fourth phase was also announced for 2020 entailing the deployment of interceptors in Poland to protect the United States from medium and intermediate-range missiles as well as potential ICBM threats from the Middle East.[4] However, the fourth phase was later cancelled, ostensibly as a result of budget decisions and significant delays in the program.[5]

The NATO BMD system is intended to provide comprehensive coverage and protection for all NATO European populations, territory and forces. It

has been developed as a response to growing concerns over Iranian ballistic missiles and its nuclear program. In a significant announcement at the 2012 Summit in Chicago, NATO declared an interim capability to defend Europe from limited ballistic missile attacks. Thus, NATO was building on its Active Layered Theater Ballistic Missile Defense (ALTBMD) program which it had started in 2005 as a means to protect recently deployed allied forces against short- and medium-range ballistic missile threats.

Russia has expressed its consistent opposition to the BMD plans of the Obama administration. At the NATO Summit in Lisbon in November 2010, Russia was invited to integrate its missile defense capabilities with NATO. However, Russia has continued to describe NATO's system as a threat to its national security. Russia has sought legally binding guarantees from Washington that missile defenses would not be directed against its strategic ballistic missiles, but the Obama administration has been unwilling to provide such pledges. In recent years, Russia has even warned that if no agreement was reached on BMD, it would withdraw from the New START Treaty.[6]

The differences between Russia and the United States over BMD are unlikely to be bridged in the near future, because of the conflicting interests and motivations of the various actors. The United States seeks to protect its NATO allies from a potential Iranian threat. In a scenario of NATO support for an American or Israeli strike on Iran's nuclear facilities, Tehran could theoretically launch a retaliatory missile attack on Europe. The United States and NATO view BMD as a tool complementing the deterrent role of nuclear weapons.[7] However, Russia does not accept the notion that interceptors in Europe are designed to counter the Iranian threat. It believes that the BMD plans threaten its nuclear deterrent, and therefore wants to place restrictions on the program or even cancel it altogether.

At the level of the national leaderships, there is agreement among the NATO allies that US BMD is designed to defend Europe against the growing ballistic missile threat from the Middle East, with an emphasis on Iran. The NATO leadership has repeatedly affirmed that the BMD system in Europe is designed to fend off threats from Middle East countries and is not directed at Russia's strategic deterrent forces.[8] Nevertheless, there is a paradox at work here: while the BMD system may indeed be directed at threats from the Middle East, and not at Russia, the enthusiastic support of Central and Eastern European countries for the system is based, as much as anything else, upon a US security commitment to these countries. Even if the United

States does not necessarily view such security commitments in terms of defending its allies from a possible Russian attack, countries such as Poland and the Baltic States view the deployment of BMD assets in Eastern Europe and US forces on their soil as an enhanced form of extended deterrence against any potential Russian threats.[9] The Russian intervention in Ukraine during 2014 will only have strengthened the expectation of some Central and Eastern European countries that the United States provide an iron clad commitment of protection from a heightened Russian threat.

The issue of US commitments to its allies in Central and Eastern Europe is a major bone of contention. In making a public commitment to defend Europe from missile attacks, the United States is seeking to increase its credibility among its European allies, including those countries in Russia's "near abroad." Understandably, Moscow is resentful and suspicious about this policy, perceiving it as a threat to its back yard. This is a legacy of the US policy to expand NATO eastwards which helped to shape the hard- line position that is seen in 2014 in Russia.

In order to overcome Moscow's concerns over BMD, US officials have expressed a readiness to explore the possibility of sharing key data with Russia. However, Moscow has demanded that the United States provide detailed information on its capabilities, some of which is highly sensitive. Washington is unwilling to take this step. US officials have met with their Russian counterparts in an attempt to convince them that their interceptors will not threaten Russian systems, but this has had no impact.

A key question posed by this research study is whether the present BMD policy is a liability rather than an asset for the United States and NATO, in terms of efforts to strengthen confidence building in the arms control arena. Is it possible that the policy creates more problems than it solves?

It is also apparent that the Kremlin seeks to restore Moscow's pride and perform on a level playing field with the United States. Thus, this paper raises the question of whether the Putin government has exploited and exacerbated the differences with the United States over BMD in order to reassert Russia's leadership credentials. In other words, is the stalemate between Washington and Moscow on BMD a reflection of the more general lack of trust and conflicts of interest between the two parties? Are the United States and Russia capable of putting differences aside and establishing cooperation in the BMD field to confront revisionist regimes armed with nuclear-armed ballistic missiles?

A final question relates to the source of the threat covered by the NATO BMD system. Assuming that it is indeed designed to defend the United States and its allies from an Iranian threat, is there any justification for carrying out future BMD deployments if the threat from Tehran recedes in the wake of a comprehensive agreement to halt its nuclear program? Can the NATO BMD system be viewed as a means to deter Iran and other revisionist regimes, or does it suggest a lack of confidence in any comprehensive agreement with Iran that is achieved?

CHAPTER ONE

The Evolution of US BMD Policy

The Rise of Mutual Deterrence and the Fall of Missile Defense

For more than half a century, the United States has been pursuing BMD capabilities as means for defending its territory against intercontinental-range ballistic missiles (ICBMs). One of the earliest examples of such a system, then known as an Anti-Ballistic Missile (ABM) system, was Nike-Zeus. The system was selected for development in 1958, and was designed to defend cities and military facilities from Soviet ICBMs. President Kennedy decided against deploying the system in late 1961, following criticism over its high cost and claims that the system could be overwhelmed by even a small number of offensive missiles. Similar difficulties plagued new and upgraded versions of this system during the 1960s and early 1970s.[10]

In 1972, the United States and Soviet Union signed the ABM Treaty which was based on the mutual understanding that neither party could build a comprehensive national defense against the other side's nuclear arsenal, and that efforts to do so could prove deeply damaging for the stability of the international system. Defense was viewed as a deeply destabilizing force. If one party believed that its capacity to retaliate was impaired by the defense of the other party, there would be a strong incentive for it to strike first with massive force. Were both parties to make such calculations, the result would be a spiraling arms race. The accompanying danger was that both sides would place their missiles on hair trigger, heightening the risk of a nuclear war. The Treaty therefore placed strict restrictions on the strategic BMD activities of the United States and the Soviet Union, prohibiting both countries from deploying a countrywide strategic defense system, although each could have two ABM sites (this was later reduced to one site each in the 1974 Protocol to the ABM Treaty). There is a widespread view that the

ABM Treaty cemented the arrangement of mutual deterrence or strategic stability which lasted for most of the cold war.[11]

Thus, by signing the ABM Treaty, both the United States and the Soviet Union had committed themselves to abandoning territorial BMD systems. In doing so, they would be placing themselves in a situation of shared vulnerability since neither party would be able to deliver a nuclear strike and feel confident of avoiding nuclear retaliation. The condition of shared vulnerability or mutual nuclear deterrence is at the heart of strategic stability. In this way, the two superpowers found the means to reduce tensions in their competition in strategic offensive arsenals, paving the way to détente.[12] By cutting BMD systems, it was believed that stability would be enhanced by ending the never-ending arms race. Deterrence was always at the core of this thinking.[13]

The situation changed dramatically with President Reagan's announcement of the Strategic Defense Initiative (SDI) in March 1983. Reagan was appalled by the concept of mutually assured destruction in which war could be prevented through the capacity of each side to destroy the other. He believed that a system that could provide a defense against nuclear weapons would be a more humane solution. In his historic speech of March 23, 1983, in which SDI was unveiled, Reagan proclaimed:

> What if free people could live secure in the knowledge that their security did not rest upon the threat of instant US retaliation to deter a Soviet attack, that we could intercept and destroy strategic ballistic missiles before they reached our own soil or that of our allies?[14]

The Soviets were concerned that the SDI, a nationwide BMD system with space-based elements, would nullify the Soviet strategic deterrent, and enable the United States to enjoy supremacy in the nuclear arena. The Soviets sought strategic parity with the United States, and were concerned that they would now need to indulge in massive expenditure in order to neutralize the new system.[15] SDI posed a hypothetical threat to the Soviets, based on military systems that had not been developed, tested or deployed.[16] The Soviets expressed strong objections to SDI, viewing it as a violation of the ABM Treaty. Reagan also faced strong criticism from Congress and by some leading officials in the State Department who feared that the Soviets would refuse to sign strategic arms reduction agreements because of SDI.

However, Reagan insisted on going ahead with his initiative. The Americans and Soviets discussed the possibility of eliminating strategic nuclear weapons at the Reykjavik summit of October 1986,[17] and the Soviets signed the Intermediate Range Nuclear Forces (INF) Treaty with the Americans in November 1987, in spite of SDI.[18]

President George H.W. Bush faced pressure from right-wing Republicans to maintain Reagan's SDI vision. However, Bush sought to prioritize an agreement on Strategic Arms Reductions (START) with the Soviet Union, and the START Treaty was signed on July 31, 1991. He was urged by many in his party to continue the funding of a strategic defense system, with any arms control agreements offset by a lifting of the restrictions in the ABM Treaty. During the US-Russia summit of June 1992 in Washington, President Bush and Russia's President Yeltsin agreed to a "consultation" on a cooperative anti-missile plan to protect their countries from missile attacks from revisionist regimes. After Bill Clinton moved into the White House in 1993, the talks on missile defense were discontinued, as both the United States and Russia focused more on reductions in offensive weaponry.[19]

The New Threat from Revisionist Regimes

During the Clinton administration's first term, a new program of Theater Missile Defense (TMD) was unveiled as concerns grew over threats from revisionist regimes such as Iran, Iraq, Libya and North Korea. Clinton sought to reassure the Russians that the TMD systems' testing would be compatible with the ABM Treaty. With the Republican triumph in the 1994 congressional elections, however, pressure gradually intensified for a national missile defense system which would eventually result in a US withdrawal from the ABM Treaty. In July 1998, a congressionally appointed committee issued a report predicting that revisionist states could possess ballistic missiles capable of hitting the United States ahead of estimated timeframes provided by the US intelligence community. In March 1999, the Senate passed a bill mandating the deployment of an "effective" anti-missile system capable of "defending the territory of the United States." This presented a great difficulty for a Clinton administration that viewed such a national missile defense system as the prelude to a withdrawal from the ABM Treaty and a serious dispute with the Russians. A decision was made on a compromise option including the deployment of a radar system in Alaska. The Russians were fiercely

opposed to the BMD plans of the Clinton administration, perceiving them as a potential threat to their strategic deterrent.[20]

During the Moscow summit of June 2000 between Clinton and Russia's new president, Vladimir Putin, serious differences emerged on the BMD issue. Clinton appealed to Putin to put aside his concerns over the vulnerability of Russia to US nuclear attack, and to focus instead on the common danger both countries faced from proliferation. Clinton maintained that both the United States and Russia had to move away from "the cold war mentality" and work together to confront threats from revisionist states. At the same time, he argued that both countries could reduce their nuclear arsenals while maintaining mutual deterrence. Clinton insisted that there was no threat to strategic stability or mutual deterrence. Putin flatly rejected Clinton's appeal, and told the US president that Russia would resort to countermeasures in response to Washington's missile defense plans. Clinton froze plans to deploy the radar site in Alaska, citing difficulties with the technology and the operational effectiveness of the system.[21]

The "Third Site" in Eastern Europe

President George W. Bush took a firmer stand on BMD. Bush gave instructions to deploy interceptors and radar systems in Alaska and California. The United States withdrew from the ABM Treaty in 2002, following a six-month advance notice as required by the Treaty. In providing notice of the US withdrawal from the ABM Treaty, Bush stated that it hampered the ability of his government to protect the American people from revisionist state missile attacks. He stated that the ABM Treaty had been signed in a different era, when there was great hostility between Washington and Moscow. This situation no longer existed. Instead, Bush maintained that the events of 9/11 had demonstrated that the greatest threats to both the United States and Russia were from terrorists and revisionist states seeking weapons of mass destruction.[22]

Putin's response to the US withdrawal from the ABM Treaty was relatively measured and calm. He accepted that the Bush administration was within its rights to withdraw from the Treaty, and that it had given notice of its intention to do so. At the same time, Putin maintained that the US decision was "a mistake," which was why Russia had always opposed Washington's proposal for joint withdrawal from the Treaty. Putin had always regarded

the ABM Treaty as a cornerstone of strategic stability. More surprisingly, however, Putin stated that Russia had always been able to overcome anti-missile defenses, and was certain that Bush's decision did not in any way threaten the security of Russia. This, of course, contradicted previous assertions by Putin that BMD threatened Russia's strategic deterrent.[23] One possible reason for the calm Russian response to the Bush administration's decision was that Moscow and Washington were about to sign the Strategic Offensive Reductions Treaty (SORT) which would limit each party's operationally deployed nuclear warheads. A hostile reaction by Putin could have jeopardized the signing of the Treaty.[24]

In addition to the 2002 deployment of missile defense sites on the US West Coast, the Bush administration announced in 2006 plans for the development of a third BMD site in Eastern Europe: a radar would be placed in the Czech Republic and Ground-Based Interceptors (GBI) deployed in northeastern Poland. These served as countermeasures to the growing nuclear and ballistic missile threat facing Europe and the United States, while complementing the two missile defense sites in the United States. Though there was some domestic opposition in Central and Eastern Europe to the US missile defense plans of the Bush administration, the governments of the Czech Republic and Poland welcomed the presence of US forces on their territory as a security guarantee against a potential Russian attack. The Czech government, specifically, was enthusiastic about the deployment, since it acknowledged the existence of a credible threat from the Middle East which justified their participation in the BMD system. Secondly, there were technological incentives, since the Czech Republic was eager to obtain access to BMD knowhow and high technologies. Thirdly, there were political advantages in a stronger bilateral relationship with the United States and benefits from the presence of a major ally on its territory. Furthermore, the Czech Republic saw an opportunity to strengthen NATO's capabilities, and believed this would enhance cooperation among Alliance members.[25] Nevertheless, some European countries were unhappy about the fact that the United States was negotiating bilateral agreements with the two countries, thereby circumventing Europe and NATO institutions.[26] Moreover, during the years of the Clinton administration, numerous US allies in Europe had expressed concerns regarding the impact of US missile defense policy on arms control and transatlantic defense.[27]

Once Moscow became aware of the US plans to deploy interceptors in Poland that could strike ballistic missiles with a range of 1500-5000 km and its construction of a radar site in the Czech Republic, Russia abruptly changed course. Russian government and military spokesmen consistently expressed the position that the systems being deployed were a threat to Russia. The Russians rejected the notion that the US BMD plans were directed at revisionist regimes, and threatened to take retaliatory action. For example Putin stated in February 2007:

> Our military specialists do not think that the missile defense systems the United States wants to deploy in Eastern Europe are aimed at countering threats from say, Iran or terrorist groups of some kind…The trajectories of missiles launched from, say, Iranian territory, are already well known. We think therefore that these arguments do not carry much weight. This does directly concern us, of course, and it will lead to an appropriate response. […] Our response will be asymmetrical, but it will be highly effective.[28]

Russian threats were also made to the countries of Central and Eastern Europe that were participating in the missile defense program. In 2005, the Chief of the General Staff of the Russian Armed Forces, General Yuri Baluyevsky issued the following warning in the Polish newspaper *Gazeta Wyborcza*:

> Go ahead and build that shield. You had better think, though, what might fall down upon your heads afterwards.[29]

There were suggestions that Russia could deploy the new *Iskander-M* tactical missiles within the exclave of Kaliningrad which borders Poland, Lithuania and the Baltic Sea, providing an option for high accuracy strikes on the interceptor sites in Poland. Russia also threatened to withdraw from the 1987 INF Treaty and the Treaty on Conventional Armed Forces in Europe (CFE). The United States dismissed Russia's concerns out of hand. The Secretary of Defense, Robert Gates, remarked: "They [the Russians] know perfectly well that the ballistic missile defense that we're contemplating and proceeding to negotiate in Europe is no threat to Russia." The Americans exerted intensive efforts with the Russians to persuade them that the BMD sites in Europe were designed to counter missile threats from revisionist regimes, with an emphasis on Iran. Lieutenant General Henry Obering,

the then Director of the Missile Defense Agency (MDA), stated at a press conference in Washington that the interceptors in Poland would not be fast enough to catch Russian ICBMs. The Russians were unmoved. There was, however, an interesting twist at the G8 Summit at Heiligendamm, Germany, in 2007. Putin offered the United States an early warning radar in Azerbaijan to monitor ballistic missile launches from the South (namely, from Iran). Putin claimed that the radar would eliminate the need for the Americans to deploy a BMD system in Europe. The Russian proposal was clearly a surprise for the Bush administration.

Indeed, the US National Security Adviser, Stephen Hadley, who accompanied Bush at the G8 Summit, claimed that Putin's proposal was confirmation that Moscow shared US concerns about a missile threat from revisionist regimes such as Iran. In fact, Putin developed his proposals further, and at the US-Russia Summit of July 2007 in Kennebunkport, he proposed putting the US BMD system under the control of the NATO-Russia Council. There would be a European missile shield with joint early warning centers in Moscow and Brussels. Later, Russia proposed the establishment of a unified system of European missile defense by 2020 replacing an American BMD system, with all European countries, including neutral countries, having equal access to its control. However, the Bush administration made it clear that it would not abandon its BMD plans in Eastern Europe. Furthermore, NATO states had unanimously supported the US plans for the third BMD site in the Czech Republic and Poland.[30]

Obama Scraps the Bush Plan and Unveils the European Phased Adaptive Approach

The system in Poland and the Czech Republic was to become a component of the global US BMD capability. Although the United States had been developing its own BMD systems for decades, President George W. Bush initiated informal talks and consultations with Alliance members in 2002 regarding a limited missile defense system endorsed by NATO. While the Bush administration was enthusiastic about expanding cooperation with NATO in the field of BMD during its second term, it still viewed BMD primarily in terms of an American system. In June 2007, NATO defense ministers agreed to explore a complementary BMD capability that would defend the southeastern part of Alliance territory (see figure 1). Bush

administration officials viewed this as readiness on the part of NATO to adapt its capabilities to complement the proposed US plan. At the NATO summit in Bucharest in April 2008, there was an acknowledgement that the US BMD system would make a "substantial contribution" to the protection of the Alliance. A declaration was made at the summit regarding NATO's readiness to examine ways to integrate the US BMD assets with the Alliance's developing missile defense system.[31]

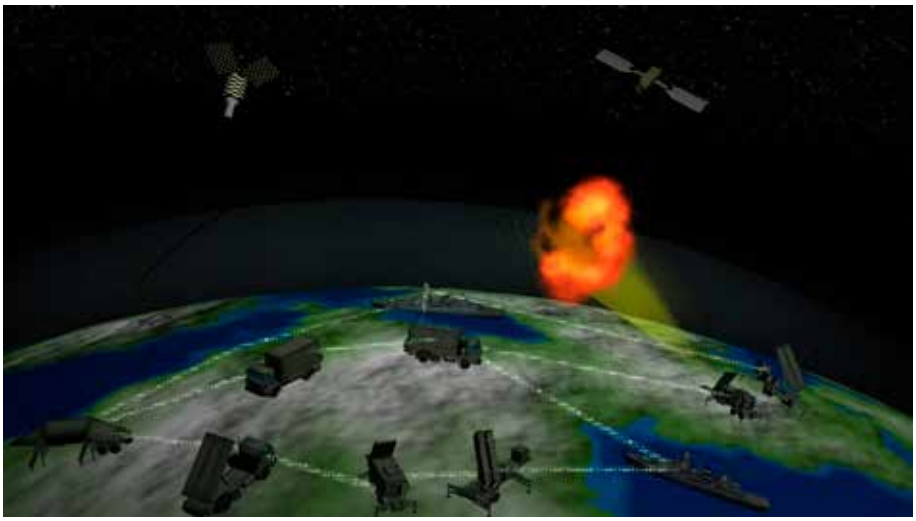

Figure 1: NATO BMD capabilities, including land and sea-based interceptors and sensors
Source: NATO website

The new Obama administration eventually decided to scrap the third missile defense site in the Czech Republic and Poland, and announced on September 17, 2009 plans for the new EPAA system. On visiting Prague and Warsaw, American officials presented a number of reasons for the new system. The United States maintained that the new system would provide a more flexible response to the threats. They acknowledged that the ICBM threat was not imminent, but that there were short-, medium- and intermediate-range missile threats. These were the most pressing problems, and the GBI systems were not the best way to counter them. Thus, the United States opted for the SM-3 type interceptors which were present on Aegis ships and could be easily consolidated, and were much cheaper than the GBI versions. However, within Central and Eastern Europe, there was also a sense that the

Americans had gone ahead with a new system in order to improve relations with the Russians.[32]

In the first phase of the EPAA, SM-3 Block IA interceptors were deployed on Aegis BMD-capable ships in the Mediterranean in 2011. In February 2014, the first US destroyer, the USS Donald Cook, equipped with the Aegis BMD system arrived in Spain. This is the first US Navy ship equipped with the Aegis BMD system to be permanently stationed in Europe.[33] In the second phase, SM-3 Block IB interceptors will be deployed at sea and on land in Romania in 2015. In the third phase, SM-3 Block IIA interceptors will be deployed on land in Poland and on ships by 2018. While some Central European and Eastern European countries (and some US Republican lawmakers) believed that the United States was seeking to appease the Russians, it appears that the third site was cancelled not as a sop to Moscow, but rather because the GBI interceptors in Poland were perceived to be ineffective, with nearly half of them failing trials. There was little sense in wasting budgetary resources on an unreliable system.[34] Indeed, the Obama administration claimed that the new SM-3 interceptors were a more mature system.[35] Mark Fitzpatrick, an expert at the International Institute for Strategic Studies, has claimed that the Obama administration's mobile adaptable system is far superior to that of its predecessor.[36]

Nevertheless, the concerns and suspicions in Central and Eastern Europe regarding the intentions of the United States cannot be dismissed. Since an improved relationship with Russia was an important objective of the Obama administration, there were advantages in deploying a new BMD system which would be incapable of threatening Russian ICBMs, but would provide US allies in Europe with the means to defend themselves from Iranian medium- and intermediate-range missiles. The unveiling of the EPAA coincided with a statement by US Secretary of Defense Gates claiming that Iran was progressing faster than expected on its development of intermediate range missiles (which could threaten Europe) but making slower progress on its development of intercontinental range missiles (which could threaten the United States). Thus, the EPAA was designed to deal with two problems simultaneously: it would bind the security of the United States to that of the West and provide firm security guarantees to Eastern Europe against a threat from Iran, while soothing Russian concerns over BMD.[37] Some in Central and Eastern Europe viewed this as an attempt to pacify the Russians. At

the same time, Moscow remained strongly opposed to the US BMD plans in Europe.

Mitt Romney, John McCain, and other leading Republicans have argued that Russia's annexation of the Crimean peninsula is a direct result of President Obama's naivety towards Moscow. They have called for the reinstatement of the Bush-era antimissile shield in Eastern Europe as a response to Putin's use of force.[38] It is claimed that Moscow perceived Obama's decision to scrap the Bush administration's BMD system in 2009 as a sign of weakness.[39] However, this argument is both wrong-headed and counter-productive. The capacities of the Bush-era BMD shield were too limited to be able to protect Eastern European countries from Russian missiles, and the same applies to the present NATO EPAA defense arrangement in Europe. This argument will only reinforce the Kremlin's claim that the NATO BMD system was always intended to undermine Russia.[40]

The US BMD Program is Officially Integrated into the NATO Defense System

At the final declaration of the NATO Summit in Lisbon in November 2010, missile defense was described as "an integral part" of NATO's "overall defense posture" alongside conventional and nuclear capabilities. It was stated that the objective of the NATO missile defense capability was to provide comprehensive protection for all NATO European populations, territory and forces against growing threats posed by the proliferation of ballistic missiles. The NATO declaration also announced a readiness to explore BMD cooperation with Russia, and to invite Moscow to integrate its own missile defense capabilities with those of NATO.[41] The Lisbon summit declaration marked the official integration of existing NATO member BMD assets as part of the comprehensive alliance defensive posture. Thus, the Obama administration's EPAA program has become part of the NATO BMD infrastructure. While there was a readiness within both the Bush and Obama administrations to deploy missile defense installations in Europe independently of NATO, if necessary, the Alliance members decided that there was more to gain from the development of a common BMD system.[42]

The EPAA was a significant step forward in NATO BMD since it went beyond the protection of deployed forces and now included a comprehensive defense of allied populations and territory in Europe.[43] There were a number

of factors behind the decision made by the various European members of the NATO Alliance to embrace the EPAA program. First, European elites came round to supporting the extension of BMD in Europe following earlier reservations, since they now perceived there was a growing ballistic missile threat to the continent from countries such as Iran.[44] The NATO commitment to the protection of the populations and territory of all European members of the Alliance has considerable appeal, essentially redefining Article 5 of the North Atlantic Treaty which commits the allies to consider an attack against one member to be an attack on all. Second, the US commitment to NATO BMD provided a bargain from a cost-benefit perspective at a time of budgetary difficulties for European countries,[45] since the EPAA is the US national contribution to NATO BMD. The United States has made it clear to its European allies that "the EPAA constitutes by far the lion's share of the planned NATO missile defense architecture."[46] A third significant factor was that all NATO members have a say in the future direction of NATO BMD policy in contrast to the situation under the Bush administration where bilateral deals were reached with the Czech Republic and Poland. Finally, many NATO members have concluded that even limited protection from ballistic missile threats is better than none with an added benefit of deterrence against potential aggressors seeking to use ballistic missiles against European targets.[47]

Arguably, the Lisbon summit declaration was a triumph for the Obama administration's efforts to "reset" relations with Russia, since NATO's commitment on missile defense extends only to the territory of Europe and not to that of the United States. The interceptors defending Europe will be largely tactical missiles with limited capabilities and will not pose a threat to Russian ICBMs.[48] Thus, on the face of it, this new development in US BMD policy should have helped to ease tensions between the United States and Russia. Yet the frictions between the two countries have not dissipated.

Ostensibly, one major obstacle to an improvement in US-Russia ties was the proposed fourth phase of the EPAA entailing the deployment of interceptors in Poland to protect the United States from medium- and intermediate-range missiles as well as potential ICBM threats from the Middle East. Moscow has expressed particular concern and displeasure over the final stages of the EPAA. Unlike the first two phases of EPAA, phase four could theoretically have been capable of destroying Russia's intercontinental missiles in flight. Yet in March 2013, the Obama administration decided to cancel phase four of

the EPAA. There were some major concerns in Central and Eastern Europe that the United States was caving in to Moscow, and reneging on its security commitments to European allies. However, such concerns may have been misplaced. It appears that the United States cancelled phase four as a result of the high cost of the project and difficulties with the technology of the interceptors, as opposed to Russian protests. Furthermore, the fourth phase of the EPAA was intended to protect the United States rather than Europe.[49] The defense of US territory itself is currently maintained by some 30 GBI missiles at sites in Alaska and California. This is sufficient to protect the United States against single missile attacks from Iran or North Korea.[50] There are also plans to deploy an additional 14 interceptors in Alaska in 2017 to address the growing threat from North Korea.[51]

The cancellation of the fourth phase has made no difference to the existing tensions between the United States and Russia over missile defense. Yousef Butt, a nuclear physicist, and Theodore Postol, Professor of Science, Technology and National Security Policy at MIT, argue that the EPAA's third phase (like the fourth) will also have "some inherent capability against Russia's strategic forces." Moscow will assess the potential threat from the US BMD system on the basis of whether interceptors are simply capable of reaching and engaging Russian warheads.[52] In spite of the cancellation of the fourth phase, Russia's opposition to US BMD remains as forceful as ever.

In the meantime, the United States and NATO have expressed a strong commitment to ensuring that the various stages of the BMD deployments are carried out on schedule. On October 28, 2013, a groundbreaking ceremony took place at the Deveselu military base in southern Romania, heralding the beginning of the construction of the missile defense facility in that country, as part of the EPAA's second phase. Participants at the ceremony included NATO Deputy Secretary General Alexander Vershbow, US Under Secretary of Defense for policy, James N. Miller, the director of the US MDA, James Syring and Romanian President Traian Basescu. Vershbow described the facility at Deveselu as "a crucial component in building up NATO's overall BMD system."[53] Furthermore, during a trip to Poland in early November 2013, US Secretary of State John Kerry declared that the plans for the deployment of interceptors in Poland would go ahead as planned, and would not be affected by developments with Iran.[54] Nevertheless, a report by the US Government Accountability Office has concluded that the Pentagon may

be over optimistic in its timeframe for the BMD deployments, as a result of difficulties with technology and acquisitions.[55]

NATO's Deterrence and Defense Posture Review

At the 2010 Lisbon Summit, NATO commissioned a Deterrence and Defense Posture Review (DDPR) designed to clearly formulate how NATO would defend its interests and deter adversaries in a fluctuating international environment. The DDPR was unveiled at the May 2012 NATO Summit in Chicago. One of the main difficulties of the DDPR was that NATO failed to outline the interaction between nuclear weapons, missile defense and conventional weapons in deterring NATO adversaries. The NATO Review states that missile defense can complement nuclear deterrence, but does not explain how and to what extent it can do so.[56]

The DDPR states that missile defense is "an integral part of the Alliance's overall defense posture." Furthermore, in viewing it as a means to enhance "the transatlantic link" contributing to the "indivisible security of the Alliance," the DDPR is effectively enshrining the coupling of the United States defense to that of Europe. The three key benefits of NATO's BMD capabilities as outlined by the DDPR are that it can "complicate an adversary's planning," "provide damage mitigation" and create "valuable decision space in times of crisis." Above all, it sends a clear message regarding NATO's determination to deter and defend any threat from outside the Euro-Atlantic area to its populations.[57] BMD is viewed by NATO as an important component of nuclear and conventional deterrence. BMD systems are a prime example of "deterrence by denial" which is based on mistrust in deterrence. The denial strategy seeks to dissuade a potential aggressor by convincing it that its actions will be denied the benefits originally anticipated. In 2007, the US MDA stated that BMD can work to deter adversaries since it diminishes the political and military value of offensive missiles. Furthermore, missile defenses are not an alternative to an offensive deterrent; rather they constitute an important and supplementary component of deterrence.[58]

Differences within NATO

There has been a gap between the perception of European leaders on NATO missile defense and European public opinion on the issue. In a country such as the Netherlands where the political leadership is very supportive of BMD,

there is a significant gap between the "expert community" and the general public on the issue.[59] NATO members in Eastern Europe such as Poland and the Baltic States are the most enthusiastic supporters of the EPAA missile defense system. Nevertheless, in the Czech Republic and even in Poland which is directly affected, there has been public opposition to the hosting of BMD installations. There have been concerns among the public in these countries over the possibility that the deployment of BMD bases will damage relations with Moscow. There are claims that the extra-territorial status of the bases will undermine national sovereignty. Questions have also been raised over command and control: who will push the launch button and how will the notification process work? Some opponents of the US BMD system have even suggested that the interception of nuclear tipped missiles over Polish or Czech soil poses the risk of a fall-out of dangerous nuclear debris.[60]

At the level of the national leaderships within NATO, there is a separate problem in regard to the commitment of the various allies to the EPAA. In the wake of the Chicago Summit, BMD has provided an opportunity for what one observer has described as "smart sharing," involving a more flexible attitude towards the pooling of resources, thereby enabling NATO to demonstrate greater cohesion and firmness in the face of growing threats.[61] Yet, this commitment to pooling resources has been conspicuous by its absence. While the United States has made it clear that it would be providing the "lion's share" of the Alliance's augmented BMD capability through the EPAA, there has also been an expectation that the European allies would contribute to the shared effort.

Over the last three years, numerous US officials have emphasized the need for their European allies to share the BMD burden in order to provide an effective response to growing threats. However, it appears that this contribution has not yet met US expectations. Average spending on defense stands at 1.1 percent of GDP, far below the 2 percent threshold stipulated by NATO. One of the notable exceptions is Poland which has set in train a $40 billion military modernization program.[62] In 2014, the United States has stepped up its efforts to persuade NATO members to increase their defense spending. At present, according to NATO data, only the United States, Britain, Greece and Estonia have spent the 2 percent minimum of their GDP on defense.[63]

Germany and the Netherlands have committed Patriot units to NATO BMD. Germany hosts the Command and Control function of NATO BMD

at the Ramstein Air Base. The Netherlands is also contributing radar systems enhancing the tracking of missile threats. In addition to the German and Dutch commitments, Poland, Romania, Spain and Turkey have provided the most significant contributions to NATO BMD. Poland and Romania will be hosting interceptors as part of the EPAA system. Spain has agreed to host US BMD-capable Aegis ships, while Turkey is hosting an AN/TPY-2 radar site operated by the United States but under the operational control of NATO. Although several European NATO members have expressed a readiness to invest in BMD contributions, their ability to do so is in doubt as a result of the severe budgetary constraints facing their defense establishments.[64]

A separate problem is the conduct of Turkey which has expressed a readiness to purchase Chinese missile defense technology. This has been particularly problematic for the Obama administration and its allies since the Chinese interceptor components are thought to be incompatible with NATO BMD technology. There are also concerns that Turkish collaboration with China on missile defense will enable the Chinese to gain access to classified NATO data and military plans. The Obama administration has expressed its concerns on the matter to Turkey. A measure has already been proposed in the US Senate which would prohibit the United States from financially supporting the integration of Chinese components with US technology that is a fundamental component of NATO EPAA.[65] According to one perspective, Ankara's readiness to collaborate with China suggests that Turkey views NATO's BMD as a bargaining chip rather than a fundamental element of collective defense.[66]

The United States remains strongly committed to the establishment of a comprehensive BMD system that will protect Europe from missile threats emanating from revisionist states. The Russian military action in Ukraine will surely strengthen the US determination to uphold its commitments to its allies in Central and Eastern Europe, notwithstanding the claim that the BMD system is not directed at Moscow but at threats outside the Euro-Atlantic area. In spite of Washington's ongoing attempts to convince Moscow that its interceptors are designed to deal with threats from Iran and North Korea, Russia continues to depict the deployment of BMD in Europe as a threat to its strategic deterrent. It remains to be seen whether a solution which can meet the needs of both parties on this sensitive issue can be found.

CHAPTER TWO

Russia's Opposition to the NATO BMD System

Russia's opposition to US BMD is not restricted to deployments in Europe. Russia has also voiced its concerns over US-Japan missile defense cooperation, expressing unease, for example, over the deployment of an x-band radar in Japan, intended to defend the country against North Korean ballistic missiles. Russia claims that US BMD deployments around the world are a threat to its nuclear forces.[67] However, Russia is not alone in expressing this opposition. China has voiced its strong objections to the United States announcement from March 26, 2012 according to which it intends to deploy BMD in the Asia-Pacific region. Beijing has long rejected the US claim that its BMD systems are not directed at China but at North Korea.[68]

However, China is a rising power while Russia is still coming to terms with its diminished status following the collapse of the Soviet Union and the loss of its sphere of influence in Central and Eastern Europe. Russia therefore views its Non-Strategic Nuclear Weapons (NSNW) as a vital source of prestige enabling it to exert influence on the world stage.[69] Russia claims that the NATO BMD system in Europe poses a threat to its nuclear deterrent. Moscow views strategic deterrence as a fundamental element of its national security, and as a guarantee of its status as a major power. Moscow is concerned that any BMD system that can nullify elements of its strategic deterrent can establish a first-strike advantage for its rivals. Russia will not consider any reductions in its NSNW without reductions in the BMD system.[70]

On entering the White House in 2009, President Obama sought to open a new chapter in US-Russia relations. Under the Bush administration, relations with Russia had deteriorated. The Democrats believed that the Republicans had deliberately sought to marginalize the Russian political leadership which they believed was counterproductive. A key feature of the Obama policy

was the "Russia Reset." Obama and the key personalities surrounding him believed that in order to make headway on the proliferation issues with regimes such as North Korea and Iran, it was essential to cooperate with Russia. However, in order to obtain cooperation with Moscow, it would be necessary to work with the Russians rather than to isolate them.[71] There was indeed a temporary improvement in ties between the United States and Russia which culminated in the signing of the New START Treaty on April 8, 2010. The Treaty provided that the nuclear warheads of the two countries would be reduced to 1,550 and deployed strategic launchers would be reduced to 700 over a ten year period.

Following his re-election as Russian president in March 2012, Putin has sought to raise the profile of Russia on the international stage and revive its status as a world power. In order to promote this objective, Russia perceives a need to advance its interests in the international arena in three key areas: it seeks to exploit its oil and gas supplies as a means to consolidate influence, it works to maximize its position in the United Nations Security Council, and places a great emphasis on its strategic nuclear arsenal. A setback in any one of these key areas would damage Russia's ability to exert its influence on the international stage. Indeed, it can be argued that Russia's strategic nuclear infrastructure is critical to the way it perceives itself as a leading power. It is not surprising, therefore, that in 2012 Moscow announced its intention to spend $790 billion on military capabilities in the coming eight years.[72]

Russian officials have stated in negotiations that they would not object to BMD assets being placed in Turkey, but deployments in Central Europe would be a problem. As Paul Schulte, an expert at Carnegie Europe, points out, it is "the geopolitically integrating effect of shared missile defense" that is such a significant factor in Russian opposition to NATO's BMD system. Schulte adds that the real issues beneath the surface "are not mere rocket science, but control or hegemonic influence over nations formerly in the Warsaw Pact or USSR."[73]

The interceptors being deployed under the fourth phase of the EPAA could theoretically have been capable of destroying Russia's intercontinental missiles in flight. However, the cancellation of the fourth phase of the EPAA has arguably weakened the possibility of the system being able to intercept these ICBMs. Russian leaders had focused on the fourth phase as their main concern, as it was perceived as a threat to its ICBMs. NATO claims that the interceptors to be deployed in Europe are not intended to defend

against intercontinental missiles and has expressed its disappointment that the cancellation of the fourth phase did not result in a change in Russia's attitude. However, Russian objections to the NATO BMD system remain in place, leaving the impression that there is no room for compromise.[74]

Leading BMD experts have questioned the notion that interceptors in Europe are even capable of hitting Russian missiles. For example, Dean A. Wilkening, a physicist at the Lawrence Livermore National Laboratory (LLNL) argues that Moscow's objections "lack technical merit" because the BMD system deployed in Europe would not be able to intercept Russian ICBMs and submarine-launched ballistic missiles (SLBMs) "without violating the laws of physics." Russian countermeasures may be able to negate such defenses in any case: it is likely that Russia's future strategic missile force would be large enough to saturate any European BMD system. While the Russians have also raised the issue of the deployment of interceptors in or around the continental United States where interception would stand a greater chance of success, they have done so only recently. Moscow's concerns remain focused on the deployment of interceptors close to Russian borders such as in Poland.[75]

A number of distinguished Russian specialists have claimed that US BMD does not pose (and will not pose in the next 15 years) a serious threat to Russian strategic deterrence, notwithstanding the claims of Moscow's political and military leadership. Thus, Yuri Solomonov, the chief architect of modern Russian ballistic missiles, has maintained that the NATO BMD system is in principle incapable of intercepting ICBMs. Furthermore, it would not be possible for the United States to establish a defensive system that could protect its territory from a massive strike involving hundreds of warheads.[76] Moreover, most Russian and foreign specialists believe that the US BMD program in Europe is only capable of intercepting a small number of ballistic missiles.[77] Yet the EPAA will still be able to intercept Iranian missiles, as before.[78] Thus it would be logical to conclude that the United States would not be targeting Russian forces. However, not all experts accept the view that the NATO system is incapable of intercepting Russian ICBMs. To this extent, Butt and Postol have claimed that it is irrelevant whether or not the EPAA is "intended" to protect NATO from a Russian threat. What matters most is that it will have "some inherent capability" against Russian forces, including during the third phase of the EPAA.[79] Furthermore, it is technically possible for the interceptors to be adapted or improved. By

deploying interceptors at a higher speed than the current one planned for the SM-3 Block IIA and by deploying Aegis ships to the Baltic, Norwegian or Barents Sea, the EPAA could, in theory, acquire a limited capability against Russian ICBMs launched from certain sites in Western Russia.[80]

United States government representatives have held meetings at the highest level with Russian officials in order to reassure them that American BMD systems are incapable of stopping their missiles. Rose Gottemoeller, the then acting Under Secretary of State for arms control and international security, said in late 2011, "We have worked at the highest level of the United States government to be transparent about our missile defense plans and capabilities and to explain that our planned missile defense programs do not threaten Russia or its security."[81] However, these efforts were not successful. One defense official who served during the first term of the Obama administration has pointed out that the Russians appear to have exaggerated and misplaced fears of US capabilities which have no basis in reality. While there is no technical basis for such fears, they are politically powerful.[82]

Russia's February 2012 announcement regarding its intention to acquire ten strategic submarines armed with SLBMs may be a reflection of genuine fears regarding NATO's EPAA. It was also announced that the Russian Navy would resume permanent combat patrols of its strategic submarines in the course of 2012. They had been suspended in 1986, with only temporary combat patrols taking place in subsequent years, and it would thus appear that Russia took this decision out of concern over the trajectory of NATO's sea-based interceptors.[83]

Russia's Concerns over Western Intentions

The Obama administration's public commitment to defend Europe from missile attacks, reflected in the EPAA concept, has been made with a view to strengthening the credibility of the United States among its European allies, including those countries in Russia's "near abroad." Understandably, Moscow is unhappy about this policy, viewing it as a threat to its back yard. This is a legacy of the US policy to expand NATO eastwards which began in 1990. East Germany had withdrawn from the Warsaw Pact, abandoned communism and merged with West Germany. The Bush administration gave an undertaking to the Soviet Union in 1990 that NATO would not expand any further eastwards.[84] Although the mid-1990s saw the emergence of the

Partnership for Peace (PFP) which brought about cooperation between NATO, the former Warsaw Pact countries and Russia, tensions were never far from the surface. The Central European countries were pushing to join NATO. Although Moscow was opposed to the eastward expansion of NATO, the Clinton administration was uncompromising in its support for the gradual integration of key Central European countries into the Alliance. In 1997, NATO formally invited the Czech Republic, Hungary and Poland to join the institution. Russia was particularly unhappy about the prospect of the Baltic States joining the institution. They joined eventually in 2002 as part of the second wave of NATO enlargement.[85] These developments have helped to shape the hardline position that is seen in Russia in 2014.

Thus it can be argued that to some degree, Moscow's growing irritation and suspicion over US BMD policy in Europe is a reflection of a more general sense of disappointment and distrust over Western policy towards Russia going back twenty years or more. For decades, Russia has expressed concern over US BMD programs. These concerns have been expressed with greater intensity over recent years, but they have not stopped the advancement of US BMD programs in Europe, East Asia and the Middle East. The Russian military and political leadership is unhappy that its concerns are seemingly ignored by the Americans. In a similar vein, Russia is deeply resentful that its concerns over NATO enlargement have been brushed aside over the last twenty years. Russia's actions in Ukraine are an expression of its determination to fend off western influence in its own backyard. Furthermore, Russia perceives that its international standing is being undermined by western policy, reflected in the support for regime change in Libya in 2011 in the face of Moscow's protests. In essence, for the Russian side, it is bad enough that the EPAA appears to threaten its strategic nuclear forces. However, on top of this, US BMD deployments in Central and Eastern Europe can also be viewed as an embodiment of NATO enlargement since they are predicated upon the provision of US security guarantees to countries in Russia's near abroad. At a time when Putin's Russia is determined to reassert its influence on the international stage, the NATO BMD policy can be seen as an affront to Moscow's prestige.

The Paradox of Russia's Position on the Iran Threat

In view of ongoing Russian objections to the NATO BMD system, it is understandable why there is much skepticism among leading experts in the field regarding the prospects for US-Russia cooperation in confronting missile threats from revisionist regimes. A significant part of the problem is that there is still disagreement between the United States and Russia in regard to the extent of the threat posed by revisionist states such as Iran and North Korea. If Russia continues to express public skepticism regarding the threat posed by Tehran, it is hard to imagine what basis there could be for meaningful cooperation between Washington and Moscow in the BMD field.

Yet there is a paradox here, since there is growing evidence to suggest that Russia has concerns over the Iran and North Korea missile threats. Moscow's political leaders publicly declare that Iran does not pose a threat to Russia. However, Russia's own actions appear to contradict its rhetoric on this subject. According to Igor Sutyagin, a specialist on Russia at the Royal United Services Institute (RUSI), Moscow has deployed nine early warning radar sites, a number of which are intended to provide protection from Iran and North Korea. Four are already operational. The deployment of the Arzamas radar and the construction of the Voronezh-DM radar in Barnaul which started in June 2013 are designed to defend Russia from the Iranian threat. Sutyagin points out that Russia has deployed two SA-12 air defense units in areas adjacent to Iranian territory. Some 43 percent of the Russian specialist theatre ballistic missile defense assets are concentrated in an area where they can provide cover against a hypothetical Iranian missile attack. Russian military planning signifies that Moscow is concerned about developments in Iran and North Korea, irrespective of the Kremlin's official propaganda.[86]

Moreover, there is an inconsistency between Russia's attitude towards the NATO BMD system and its approach towards Iran. Moscow has taken a consistently hostile position towards the deployment of interceptors in Europe, based on the notion that they are capable of threatening Russia, even though Washington has made it clear that they are not directed at Russia. Yet Russia has not voiced similar concerns over Iranian ballistic missiles which are also a potential threat to Moscow. Instead, Russian officials have maintained that Iran has no intention of attacking Russia, and will never

do so. In other words, according to this Russian perspective on Iran, it is intentions that matter, and not capabilities.[87]

However, even if beneath the surface there are concerns about Tehran, Russia has prioritized its strategy to counter western interests in the region. Russia is developing a defensive program: an Air Space Defense (ASD) system. The program includes an upgraded BM early-warning station, land-based radars and plans for deployment of 28 anti-aircraft missile regiments. Russia's 2010 Military Doctrine has made it plain that the ASD is directed against the United States and NATO, while the United States has consistently claimed that its BMD program is not directed against Russia.[88] Russia has developed countermeasures to negate American and Western systems. The Rubezh/Avangard missile systems, for example, have been developed to deal with the United States and not Iran.[89]

An additional problem from a US perspective relates to questions over the possible Russian testing of missiles in violation of the INF Treaty. In particular, there are concerns that Russia has tested a ground-launched cruise missile which could hit targets in Europe. In the event that the charges against Russia are true, this could have serious repercussions for US-Russia arms control efforts and would undermine further European confidence in Moscow's intentions.[90]

Is Cooperation Feasible?

Both the United States and Russia have expressed a readiness in the past to establish cooperation on BMD, yet little has been done in practice to overcome the differences on this difficult issue. At the November 2010 Summit in Lisbon, Russia was invited to participate in the creation of the new BMD system in Europe. While Russia accepted this offer, it also proposed to establish two BMD systems with a unified command and control point. The NATO secretary general, Anders Fogh Rasmussen rejected this idea on the basis that the Alliance could not trust a non-member state with the defense of territories for which NATO is responsible. An additional difficulty has been Moscow's insistence that both Washington and Brussels provide legal assurances that BMD would not be directed against Russian strategic deterrence forces. The United States and NATO firmly rejected this demand, but offered Moscow an opportunity to take part in testing the AEGIS system in the Pacific Ocean, with a view to reassuring it that the

system would not pose a threat to Russian strategic nuclear forces. This offer was not acceptable to the Russian political and military leadership.[91]

Washington has expressed a willingness to accept a political agreement affirming that its missile defense assets are not aimed at Russia. A statement of this kind would be politically but not legally binding, and would publicly declare Washington's commitment to working with Moscow in devising a pathway for BMD cooperation. However, Russia has continued to insist on a legally binding agreement with limits on BMD operations. Such a legally binding agreement would be very difficult to achieve in view of the strong Republican opposition to it in Congress. The Senate resolution supporting ratification of New START, for example, specifically stated that the Senate would find limitations on missile defense unacceptable.[92] The Russian demand for American legal guarantees is fundamentally flawed, since no US president could agree to legal obligations that would prevent the interception of nuclear missiles heading for the country's cities.[93]

In the course of negotiations, the Russians have asked the Americans to provide detailed information on capabilities, including the sharing of information on the internal dynamics of operating systems and launch codes. The United States was unwilling to do this.[94] In March 2012, Ellen Tauscher, U.S. special envoy for strategic stability and missile defense, stated that Russia was seeking a "legal guarantee" that would restrict the ability of the United States to deploy future missile defense systems. Tauscher said Russia also was asking for data on the entry of United States Aegis-equipped ships into certain waters and when an interceptor achieved a certain velocity. She made it clear that the United States could not accept restrictions on the capabilities and numbers of its BMD system or on the location of Aegis-equipped ships.[95] The United States also has concerns that sensitive information could be leaked and transferred to countries such as China, Iran or North Korea. This was precisely the reason for the concern expressed by Rasmussen over Turkey's readiness to buy Chinese missile defense technology.

At the 2010 Lisbon Summit, NATO and Russia agreed to work towards cooperation on BMD, based on a shared understanding of the threat posed by ballistic missile proliferation and the potential benefits that could be achieved by linking their missile defense capabilities. However, putting this agreement into practice has been exceptionally difficult. NATO claims that it is seeking to establish a combined missile defense infrastructure that can

defend both the Alliance and Russia. This would include close integration and day-to-day interaction between the NATO and Russian systems, while separate chains of command would be maintained. This combined BMD infrastructure would enable NATO to carry out its responsibility to defend Alliance territory while Russia would be able to defend Russian territory. At the same time, both sides would benefit from mutually reinforcing capabilities. This goal would uphold NATO's collective defense responsibilities as well as Russia's territorial sovereignty which are both important points of principle.[96]

NATO has supported the establishment of two joint missile defense centers. In the first, the NATO-Russia Data Fusion Center, NATO and Russian officers would monitor incoming intelligence and share early-warning data and other information. In addition, a NATO-Russia Planning and Operations Centre would involve joint planning and coordination of missile defense operations. The concept envisages joint operations by NATO and Russian officers, on a full-time basis, to develop plans for the interception of missiles that could be launched against either party in various scenarios. Although missile intercepts would be conducted through each party's respective command and control system, there would be significant cooperation at each stage of the intercept process, and this could considerably strengthen the effectiveness of the US and Russian combined BMD capabilities. NATO has also offered to develop full transparency on missile defense plans and capabilities. This could involve an annual exchange of information about each side's current and planned BMD capabilities extending several years into the future, in order to enhance trust and predictability among military planners and policy makers. However, there is no longer any exploration of these proposals.[97]

The Case for Cooperation with Russia

Many leading experts in the BMD field have argued that cooperation between the parties would enhance their ability to counter the growing missile threat from revisionist states such as Iran and North Korea. Even if full cooperation between NATO and Russia is politically and militarily unfeasible, in theory there are confidence building measures that both parties can take to alleviate tension and build trust. For example, Wilkening proposes unilateral declarations on the total number of interceptors deployed and voluntary onsite inspections of interceptor stockpiles to verify numbers.[98] The establishment of a joint

NATO-Russia early warning radar in central Russia would bring both sides considerable benefits. Russia would gain from such an arrangement as it would provide more accurate information regarding incoming ballistic missile attacks, enhancing the reliability of Russian command and control systems. The United States stands to gain from such an arrangement, as a radar in central Russia could detect Iranian ICBMs earlier than the current US early warning systems and would enhance the performance of the US BMD system against Iranian missiles, without threatening Russian ICBMs. There would also be advantages for Europe since no European radar is currently able to track the trajectories of ballistic missiles directed at Europe from the east, thereby enhancing the early warning coverage and effectiveness of the BMD system on the continent.[99]

Nevertheless, as the author has pointed out, a joint radar in central Russia is not risk-free for the United States, as Moscow could theoretically restrict access to data from the radar during an Iranian ICBM attack. Russian objections to NATO facilities on its territory are likely to prevent such an ambitious project from getting off the ground in the first place. A third potential difficulty is that China is likely to view a joint NATO-Russia radar as a threat to its own ballistic missiles. While a NATO-Russia radar of this kind might have been worth striving for, Wilkening accepts that the venture is unlikely to be implemented in the near future because of the lack of cooperation between the parties.[100]

Other specialists have suggested that the United States and NATO could provide Moscow with a detailed list of criteria that will be taken into consideration when deciding on future stages of BMD deployments in Europe. This list would include a description of Iranian actions which could eventually result in a slowing or acceleration of the EPAA. NATO and the United States could notify Russia ahead of time on the circumstances and the reasons for a future adaptation of the BMD program. By communicating in detail with Moscow on the principles and conditions behind the development of BMD, the United States and NATO would be providing a measure of reassurance to Russia and lowering the risks of heightened mistrust on this issue. This would apply equally to the communication of the United States with China on its BMD plans in East Asia. The benefit of such an arrangement is that Russia and China would be clearly aware of the Iranian (or North Korean) actions that could trigger US and NATO responses in the BMD field. Thus, in theory, Moscow and Beijing would have a stronger incentive to prevent

Iranian and North Korean development of their missile and nuclear programs. In turn, Russia could provide NATO with greater transparency on its own BMD plans, including the development of its air space defense system.[101]

In one study on BMD cooperation carried out by the Euro-Atlantic Security Initiative (EASI), involving a broad circle of former high-level policymakers and defense experts, it was argued that successful BMD cooperation between the United States, NATO and Russia could be "a game changer" that could help to remove longstanding historical mistrust, and pave the way to deeper cooperation in combating global threats such as ballistic missile proliferation, nuclear proliferation and terrorism. The authors claimed that evolving cooperation in this sphere would build the conditions to establish a new relationship based upon mutual trust, leading to a strengthening of the non-proliferation regime and the possibility of greater progress in securing nuclear weapons and materials.[102]

To date, the cooperation between the United States and Russia has taken place on a limited scale. The United States and Russia had reached an agreement on a Joint Data Exchange Center in 1998, but it was never implemented.[103] Prior to 2008, the NATO-Russia Council conducted a number of missile defense simulations, designed to test data exchange techniques.[104] NATO and Russia conducted a computer-assisted missile defense exercise in March 2012.[105] The attempts to find compromise solutions on missile defense over the last two years have ended with Russia's decision in 2013 to suspend negotiations in the NATO-Russia Council.[106] Reports in October 2013 regarding Putin's disbanding of the inter-agency working group headed by Deputy Prime Minister Dmitry Rogozin which was responsible for BMD negotiations with the United States, constitute further evidence of Russia's apparent loss of interest in the idea of joint missile defense.[107] In March 2014, the Obama administration announced that it had suspended discussions with Russia on potential BMD cooperation in response to Moscow's actions in Ukraine. Senior Russian officials reacted dismissively to the announcement on the suspension of talks, maintaining that it would make little difference since progress on this issue had been minimal.[108]

In 2014, there are substantial difficulties which severely hamper the possibility of this bilateral cooperation in the near future. While the United States has invested substantial resources in the development of land and sea-based BMD systems that can intercept missiles of various ranges, Russia has spent considerably less on such technologies. As a result, Russia is not

in a position to contribute fully developed systems to a cooperative venture. Furthermore, Russia does not possess the equivalent of the United States MDA which administers the development and purchase of BMD systems. This absence of a counterpart that shares a common organizational and operational culture impedes the possibility of meaningful cooperation in the BMD sphere.[109] Furthermore, at present, it is clear that the political and military policies of both NATO and Russia do not meet the high standards necessary for the development of confidence which is vital for any shared development of BMD systems.[110]

There is also an argument that notwithstanding Russia's harsh invective over missile defense, it has on occasions shown flexibility on this issue. Russia has been able to conveniently overlook the bugbear of BMD when political conditions were right, for example, in the run-up to the signing of New START in 2010. If Russia is now making more of an issue of missile defense, this is because the politics has shifted. Having achieved an arms control agreement with the United States, Russia now needs a pretext for its strategic modernization program.[111]

Against this, it can be argued that cooperation in the development of BMD can take place only among allies. Alexei Arbatov, a scholar of the Russian Academy of Sciences, maintains that even the American coordination with its allies in NATO, Japan and South Korea over the deployment of BMD is not cooperation in the full sense of the word, but rather the deployment of US assets using the territory, logistics and infrastructure of the host states. Some NATO allies of the United States had supported the BMD program less out of a fear of Iran, and more as a result of the perception that it was a strong instrument for consolidating the Alliance in view of the possibility of significant cuts in the US military presence in Europe. At present, there is no appetite among the US leadership and new NATO countries for cooperation with Russia in the BMD field. In Russia, opposition is even stronger since confrontation with the West is an important component of domestic and foreign policy.[112]

While Russia's inflexibility has significantly contributed to the lack of cooperation on BMD, the attitude of the United States on the issue has not helped. The absence of goodwill between the two countries on this issue may, to some extent, be a result of Washington's condescending attitude towards Moscow in the response to its concerns over the NATO missile defense program, which has resulted in the hardening of the Russian position. The

United States could have missed an opportunity to work with Moscow on combating extensive nuclear and missile proliferation. According to this perspective, Russia's decision not to deliver the S-300 system to Iran in 2009 was a positive gesture that the United States could have reciprocated by taking on board some of Russia's objections regarding future BMD deployments. At the same time, Russia has to face up to the fact that its own uncompromising attitude to the NATO BMD system has not advanced the objectives it has set on this issue. As matters stand, the NATO deployments are going ahead notwithstanding Moscow's objections.[113]

The failure of the United States and Russia to develop meaningful cooperation in the BMD sphere is viewed by some experts as a significant missed opportunity. One of the most serious challenges facing the international community today is the threat of the proliferation of nuclear weapons. By pooling their expertise, the United States and Russia can deal more effectively with the growing nuclear threat posed by states such as Iran and North Korea. It is argued that the ability of missile defenses to provide protection from the threat of nuclear-armed revisionist states may eventually become an essential component of the strategy for achieving the vision of a world free of nuclear weapons. Yet by developing missile defenses in a spirit of confrontation rather than cooperation, nuclear-armed states will be less willing to dismantle their arsenals.[114] However, in 2014, this argument will carry little weight. Poland and the Baltic States may not be the only countries within NATO to take the view that it is Putin's Russia, as much as Iran and North Korea, that poses a serious threat to international stability.

The New Realities of NATO-Russia Relations

The difficult memories of domination by Tsarist Russia and the Soviet Union continue to influence the thinking and attitudes of Central and Eastern European countries which are particularly sensitive to fresh indications of Moscow's assertiveness.[115] In the wake of Russia's annexation of Crimea, the growing threat to the territorial integrity of Ukraine and heightened alarm among NATO states of Central and Eastern Europe regarding Moscow's future ambitions, there is growing pressure on Washington and the Alliance to strengthen defensive capabilities and regional security in order to deter potential Russian military interventions. Russia's annexation of Crimea has serious implications for the future security of NATO's Central and Eastern

European states, in view of the fact that Ukraine is the largest country in Eastern Europe with a population of 45 million and a strategically important location between Europe and Eurasia. Concern in Central and Eastern European countries is growing while doubts are also rising over NATO's ability to address this threat. Moscow has spoken of its determination to defend Russian-speaking minorities which stokes fears in the Baltic states where there are substantial Russian minorities.[116] Alarm has been expressed in European countries bordering with Russia over reports of Moscow's deployments of nuclear-capable missiles in Kaliningrad. Lithuania's Defense Minister, Juozas Olekas, expressed his fears over Russia's modernization of missile systems deployed in Kaliningrad, adding that further militarization of the region created heightened anxiety and would require careful monitoring.[117]

In the early months of 2014, NATO announced a comprehensive review of its cooperation with Russia in order to pressure Moscow to back down over Ukraine, although this has had little impact. Rasmussen announced that NATO officials would no longer hold lower-level meetings with their Russian counterparts.[118] The Pentagon has also announced the suspension of bilateral cooperation with Russia. In response, Russia has warned that it could freeze inspections to verify compliance with the New START accord.[119] Russia has already indicated that it will reduce its cooperation with the United States in the field of nuclear security.[120] In order to reassure its US allies in Eastern Europe, the Pentagon has more than doubled the number of American fighter jets on NATO air patrol missions in the Baltic States and is increasing its training with Poland's air force.[121]

In order to deter a potential Russian threat to vulnerable NATO members, the United States could consider redeploying US ground units from Germany to Poland and the Baltic States.[122] NATO's top military commander, Philip Breedlove, stated in May 2014 that the Alliance will have to consider the permanent deployment of its troops in Eastern Europe in view of the rising tensions between Russia and Ukraine.[123] A permanent presence of a substantial number of NATO forces in countries neighboring Russia will indicate NATO's resolve to resist the threat of encroachment on Alliance territory. Poland would also value the permanent presence of US air force personnel on its territory.[124]

At the September 2014 NATO Summit in Wales, the Alliance took a step in this direction. As well as approving a NATO Readiness Action Plan to provide a "coherent and comprehensive" response to the challenge posed

by Russia and countries beyond the Euro-Atlantic area, there was also an announcement of a rotating "continuous air, land and maritime presence" and "meaningful military activity" on the territory of eastern members of the Alliance. This nonpermanent flexible military presence is designed to deter threats from outside NATO and to provide assurance to vulnerable members.[125]

The provision of Patriot missiles could assist in creating an effective response to the threat of Iskander missiles located in Kaliningrad. For some years now, Poland has called on the United States to supply Patriot air defense batteries. The United States has supplied Patriot air defense batteries for training exercises, but there has been a reluctance to provide operational missiles to Poland which has resulted in tensions between Washington and Warsaw.[126] Operational Patriot missiles would provide protection from Russian short-range ballistic missiles, as opposed to the SM-3 interceptors which are to be deployed in 2018 under the EPAA. It is precisely for this reason that Poland is so eager to receive the Patriot batteries. Turkey, another NATO member, has already received this assistance to defend itself from Syrian missiles. The deployment of operational Patriot missiles in Poland, the Baltic states and other vulnerable countries would send a strong signal of the US security commitment to its allies in Central and Eastern Europe, while also strengthening NATO deterrence in this region in the face of growing Russian assertiveness. Poland is also planning to acquire new air and missile defense technologies at a potential cost of $8.4 billion to defend against lower-tier threats. The national system could be integrated with the NATO BMD system.[127]

In countries such as Poland and the Czech Republic, government officials attach great importance to the role of nuclear weapons in deterring Russia. This would mean the continued deployment of American B-61 nuclear warheads in Europe and the preservation of an air capability for the delivery of these bombs. A number of NATO countries in Western Europe (particularly Germany) had argued for the return of the tactical nuclear weapons to the United States, since it was perceived that they provided little military value for the Alliance.[128] This argument has been undermined by recent events in Ukraine, with other NATO members taking the view that the B-61 bombs are required for providing reassurance. The United States is currently upgrading the B-61 nuclear bomb which is deployed in five European NATO member states.[129] In the wake of the crisis in Ukraine, there have been calls for the

deployment of nuclear weapons in the territory of Eastern Europe as a means to strengthen deterrence.[130] However, such a move would be deeply provocative for Moscow, and is liable to escalate tensions between NATO and Russia,[131] while serving only to strengthen divisions between the western and eastern parts of NATO.

The issues that have provoked the crisis between Russia and the West over Ukraine are those very same ones that have increased tensions, deadlock and mistrust in the BMD sphere: Russia's determination to protect its sphere of influence, its smoldering resentment towards the West and distrust of NATO in the wake of the expansion eastwards. At the same time, the United States feels it is under an obligation to protect its allies in Central and Eastern Europe. Furthermore, as countries in Russia's "near abroad" sense a growing threat from Moscow, the United States will in turn come under greater pressure to support its allies in this region. Russia has made it clear that actions by Washington and NATO have confirmed its fears about the BMD system in Europe. An earlier version of the Aegis ship-based interceptor was redeployed to the Black Sea for a short period in April 2014 to reassure NATO partners amid the rising tensions with Russia. The Russian Deputy Foreign Minister, Sergei Ryabkov, stated in the spring of 2014, "We feel the symptoms of the work on various segments of the [anti-ballistic missile] system being intensified."[132]

With the rising tensions between NATO and Russia, Hagel, has already indicated that Washington may "adjust" the timing for the deployment of BMD assets in Europe, in order to reassure its Eastern European allies.[133] This is likely to increase Russia's skepticism and distrust regarding the US and NATO claims that its BMD systems are not directed at Moscow but at threats in the Middle East.

While Russia's concerns should not be dismissed, it can be argued that Moscow's accusations over US BMD also serve a political purpose. They reinforce suspicions over Western intentions, and divert attention from Russian domestic problems such as the state of the economy and public dissatisfaction with the political system. President Putin, in particular, has played on longstanding fears going back to the dawn of the cold war concerning the intentions of the United States and NATO. The Russian leadership has promoted a narrative which heightens the perception of Russia as a victim threatened by NATO encroachment.[134] It is likely that Putin has calculated that it serves his interests to depict BMD as a Western

plot designed to weaken Moscow. The Russian leadership wants to restore its pride and perform on a level playing field with the United States. To this end, the Kremlin appears to believe that it works to be tough with the West and stand up to NATO, in seeking to resurrect Russia as a leading world power. This is evident in Russia's readiness to use force during 2014 in order to ensure that Ukraine does not fall into the western orbit. Thus, BMD is more an expression of the tensions and disagreements between Russia and NATO than it is a direct cause of the escalating crisis between the parties.

CHAPTER THREE

The Perception of the Iranian Threat and its Impact on NATO BMD

Turkey's Role

Iran is on the threshold of acquiring a military nuclear capability. A nuclear Iran would pose an immediate threat to NATO as it borders Turkey, an Alliance member. Turkey has already received assistance from NATO with the deployment of surface-to-air Patriot missiles to defend its border with Syria. In November 2013, the United States agreed to a Turkish request to extend the deployment of the Patriot anti-missile system for at least another year. The United States, Germany and the Netherlands have supplied six Patriot batteries under NATO command and control which have been deployed along the Turkish border with Syria since the start of 2013.[135] Ankara has received the assistance following mortar bomb attacks from Syrian territory resulting in the deaths of a number of Turkish civilians. NATO views this assistance in terms of deterring threats and defending a member of the Alliance. However, Iran and Russia, allies of the Bashar Al-Assad regime, have opposed the deployment, expressing fears of a regional conflict that could draw in NATO.[136]

Although NATO has not officially declared Iran as the source of the potential ballistic missile threat facing Europe, the growing threat from Tehran was a significant factor in the decision to build the EPAA system. NATO has been careful to state that its BMD system is not directed at any one particular country, partly because of Turkey's objections to Iran being named as the main source of the threat facing Europe.[137] In 2011, Turkey was asked by NATO to host a radar on its territory. Turkey agreed, but insisted that Iran should not be named as a threat, perhaps due to unease that this would damage its ties with Tehran. Ankara was also concerned that the radar

would benefit Israel. Indeed, while Iran's nuclear program has been viewed historically as a threat for Turkey, Ankara now appears to be ambivalent in regard to the potential threat from Tehran.[138] US officials, however, have spoken more openly about the need to defend its allies from Iranian ballistic missiles. For example, in February 2009, the Defense Secretary, Robert Gates, stated in Poland that a NATO BMD system would not be required if Iran didn't pose a threat with its missiles and efforts to obtain weapons of mass destruction.[139]

BMD in the Middle East Arena

The majority of Iran's ballistic missiles are short-range (less than about 500 kilometers). Iran is also developing Medium-Range Ballistic Missile capabilities (MRBM) with ranges estimated up to 2000 kilometers and even beyond, enabling it to strike targets throughout the Middle East. According to US intelligence estimates, Iran's MRBMs are capable of carrying a nuclear warhead.[140] While Iranian ballistic missiles will pose a growing threat to Europe in the coming years, they are an immediate concern for US allies in the Middle East (see figure 2). The United States has worked closely with Israel on the development of the various stages of the Arrow missile defense system designed to protect Israel from the Iranian missile threat. The Israeli Air Force holds regular missile defense exercises with the US Army and Navy.[141] The United States has also provided funding for other missile defense programs such as David's Sling and Iron Dome. Indeed, the US security commitments to its allies in the Middle East are not too dissimilar to the undertakings it has provided to NATO allies in Europe.

During 2013, Washington exerted efforts to encourage members of the Gulf Cooperation Council to join together their respective missile defense capabilities to establish a regional shield based on the NATO model in Europe. The United States is seeking to export BMD systems to the Gulf states, and to encourage closer coordination between the countries. Saudi Arabia, the United Arab Emirates, Oman, Kuwait and Qatar have already purchased missile defense systems from the United States. As in Europe, the United States seeks to protect its regional allies from the threat of Iranian ballistic missile attacks. However, in contrast to the NATO case, the Gulf countries are wary of establishing close coordination on BMD because of the rivalries between them.[142] This is a problem for the United States which

has been forced to adopt a bilateral approach on BMD with the Gulf States, rather than the multilateral approach that it favors.[143]

Figure 2: MRBM Sites and Ranges

The Potential Iranian Threat to NATO

According to a 2012 report by the US Department of Defense, Iran also continues to develop long range ballistic missiles that can target not only its regional adversaries such as Israel but also countries in Eastern Europe. According to this same report, Iran may be technically capable of flight

testing an ICBM by 2015.[144] An Iranian ICBM with ranges exceeding 5500 kilometers could threaten targets throughout Europe, and eventually even the United States if Iran obtained an ICBM capability of at least 10000 kilometers.[145] However, a report from the Pentagon dated January 2014, does not include an assessment of Iran's capability to test an ICBM by 2015. The report does acknowledge Iran's stated readiness to demonstrate a space launch vehicle by 2015 "that could be capable of intercontinental ballistic missile ranges if configured as a ballistic missile." James Clapper, director of national intelligence, told the Senate Select Committee on Intelligence on January 29 that "Iran's progress on space launch vehicles…provides Tehran with the means and motivation to develop longer-range missiles, including an intercontinental ballistic missile."[146] Some other experts have argued that it is highly unlikely that Iran would be able to build and deploy an operational ICBM before the end of the decade, once a test has been carried out.[147]

Nevertheless, Iran already has operational missiles with ranges of 1500 to 2500 km which can reach targets in the Middle East, Turkey and southeast Europe. It has been working on an extended-range version of the Shahab-3 and a 2000 km MRBM, the Sejjil-2 (also known as the Ashura). Tehran has reportedly been developing a nuclear warhead for the Shahab-3. There is the possibility that Iran may soon be able to produce missiles with a range of 3000 km, given the scale of research and development into its ballistic missile program. Tehran has also enhanced the effectiveness of its existing missile systems with improvements of accuracy and new submunition payloads. There is no agreement in regard to Iran's ability to penetrate missile defenses.[148] Iran, for its part, claims that its ballistic missile program is "non-nuclear" – it was developed for conventional and defensive purposes, a legacy of the painful experience of the war with Iraq in the 1980s.[149]

NATO members Romania and Bulgaria are within range of Iran's MRBMs. Iran's nuclear and missile programs must be examined within the context of its current position in the international system: it seeks to build hegemony in the Middle East, restrict the influence of the United States, accrue power at the expense of its adversaries, guarantee the survival of the regime and safeguard its independence. Confronted with sanctions and a forceful US military presence in the region, Iran will seek to challenge missile defense deployments, particularly in the Middle East.[150] In a scenario of NATO support for an American or Israeli strike on Iran's nuclear facilities, Tehran could

theoretically launch a retaliatory missile attack on Europe. Such an attack could focus on US forces or symbols of the US presence in Europe. Thus, the EPAA is both a response to a real threat and an attempt to strengthen the credibility of US commitments to its European allies in the face of this threat.[151]

What Impact will a Comprehensive Iran Agreement have on the NATO BMD System?

What would happen to NATO BMD in Europe if a permanent deal is reached between Iran and the P5 +1 (the five permanent members of the UN Security Council and Germany with the participation of the EU)? In November 2013, an interim deal was reached between Iran and the P5+1 which placed restrictions on Iran's uranium enrichment programs and halted its work at the Arak plutonium reactor for a period of six months, in exchange for limited sanctions relief.[152] The deadline for the negotiations of a comprehensive deal has now been extended to July 2015 in order to obtain more time to reach an agreement. In the event of a comprehensive solution of the nuclear crisis with Iran, there will arguably be less of a justification for the NATO BMD system. At the very least, there is an argument that NATO should wait for the outcome of negotiations with Iran, before continuing with the BMD plans which are financially onerous and liable to create conflict among alliance members, if the system is no longer required.[153]

President Obama and Secretary Kerry are steadfast in their pursuit of a comprehensive deal with Iran that will halt its work to obtain a nuclear capability. If a long-term agreement to stop Iran's nuclear program is of such importance to the Obama administration, why does it insist that there will be no changes to its BMD system in Europe which is specifically designed to contain a future Iranian nuclear threat? The Russian Foreign Minister, Sergei Lavrov has already stated that full Iranian compliance with the provisions in the interim deal would mean that there is "no reason" for the existence of the BMD system. Germany's former foreign minister, Guido Westerwelle, suggested that the interim deal with Iran may affect the NATO BMD program in Europe. In a meeting with the press in Geneva on November 23, 2013, ahead of his participation in talks with the Iranians on their nuclear program, Westerwelle stated that meaningful progress in negotiations with Iran over its nuclear program was likely to have an impact on the BMD program, increasing the possibility of defused tensions with Russia. As Germany is

hosting the NATO BMD command and control center at the Ramstein air base, this statement was not without significance for the future direction of the EPAA.[154]

The US BMD system is designed mainly to deal with nuclear-armed missiles, as opposed to conventional threats. There are questions over whether it would make sense to invest vast amounts of money and political capital to defend Europe from conventionally-armed missiles, since the damage would be relatively insignificant.[155] The NATO Lisbon Summit of 2010 stated that BMD would be developed in accordance with the "level of threat."[156] In the event that this threat recedes, there will be less justification for the BMD system. Furthermore, an increased threat from North Korea could persuade the United States to focus instead on defending its allies in East Asia and developing BMD on its own soil. There are some suggestions that in the event of a deal with Iran, it is possible that the United States could pursue the development of EPAA with less urgency, or even downgrade it altogether. From this vantage point, it is not inconceivable that the United States could postpone plans to deploy interceptors in Poland in 2018 (the third phase of the EPAA), in the same way that the fourth phase was cancelled in March 2013.[157]

The Central and Eastern European members of the Alliance believe that it is essential that the third phase of the EPAA is completed. Since the fourth phase of the EPAA has already been cancelled, a failure to complete the third phase would send a bad signal regarding the US commitment to Central Europe – particularly, when there has been talk of the US rebalancing and a declining American presence in Europe. The Poles and their Central European allies have had concerns that the third BMD deployment will not take place. Since the United States has to work with the Russians over issues such as Syria, Iran and arms reductions, there has been a fear that the third phase will fall victim to a round of rapprochement between the powers.[158] Poland has expressed its unease on this matter.[159]

Nevertheless, it is certainly premature to argue that the NATO BMD system will need to be adapted in the wake of a deal with Iran. Unless an agreement significantly distances Tehran from the acquisition of a nuclear capability, countries such as Bulgaria and Romania will not feel any more secure. Kerry has also made it clear that even if the Iranian nuclear program were to be eventually dismantled, Tehran could still equip its ballistic missiles with other forms of WMD.[160] Furthermore, were a conventional missile to hit

a strategic target such as an airport or a nuclear power station, for example, there could be large-scale civilian casualties and destruction. The missile attack which brought down a Malaysian passenger jet on Ukrainian soil in July 2014 is a powerful illustration that conventional missiles can also have a very destructive impact. As NATO's Deputy Secretary General Vershbow pointed out at the INSS missile defense conference in January 2014, the BMD system in Europe is not directed at one particular country and "is not a defense against nuclear weapons but against delivery means…a defense against ballistic systems that could carry nuclear, chemical, biological or conventional warheads."[161]

There is a possibility that some adversaries could interpret the deployment of BMD systems as a softening of deterrence. The insistence of the Obama administration on going ahead with the deployment of BMD systems could be viewed in terms of a preparation for the failure of the diplomatic effort to stop Iran's nuclear aspirations. According to the Obama administration, the deployment of interceptors in Romania and Poland will take place as planned. It is claimed that the interceptors will be deployed to defend Europe from Iran, whether a comprehensive deal is reached or not. Over time, this may only raise suspicions among Middle East countries threatened by Iran that a comprehensive agreement with Tehran is perceived as a short-term panacea. The concern among some countries may be that Tehran could interpret the Obama administration's BMD policy as an admission that Iran cannot be prevented from achieving its nuclear ambitions.

There is also the possibility that the P5+1 and Tehran will reach an agreement that leaves the Iranians with a limited uranium enrichment capability under tight restrictions and the close supervision of the International Atomic Energy Agency (IAEA). Yet if Iran were to make a definitive decision to acquire a nuclear weapon, even a limited uranium enrichment capacity could enable it to produce sufficient weapons grade uranium for a bomb. Furthermore, if a future agreement with Iran does not address the question of ballistic missiles, then the threat from Iran remains intact. According to US intelligence assessments, Iran would be most likely to deliver a nuclear weapon by means of a ballistic missile. Nevertheless, some experts argue that the inclusion of Iran's ballistic missile program in the P5+1 negotiations could invite new difficulties: Iran could insist, for example, that Saudi Arabian and Turkish ballistic missile programs should also be addressed. Moreover, it would be very difficult to stop the ballistic missile program

given its similarities to Iran's space program. Finally, if forced to deal with ballistic missiles, Iran could be expected to greatly enhance its cruise missile development instead.[162]

According to Steven Pifer, an expert at the Brookings Institution, the less time it takes for Iran to break out to acquire a nuclear capability, the higher the probability that NATO would perceive its missile defense system as "a useful hedge."[163] Obama may do his utmost to ensure that Iran does not acquire a nuclear capability while he is in office. However, unless the nuclear program is largely dismantled and the weaponization issue is addressed, there is considerable uncertainty over what will happen more than three years down the line. Tehran could sign an agreement and renege on it at a convenient moment if it chooses to do so. From this perspective, it would be unwise for the United States to review its missile defense commitments in Europe.

Moreover, the United States and NATO claim that the BMD program in Europe is a means to defend its allies from multiple threats. For example, there are concerns over nuclear cooperation between Saudi Arabia and Pakistan. In addition, were the government of Pakistan to collapse, there is a grave danger that Islamabad's nuclear weapons could fall into the hands of Islamist extremists.[164] Similarly, there is the potential that a Middle Eastern country could develop a clandestine program, as was the case with Syria until its reactor was destroyed in 2007. As Madelyn Creedon, US Assistant Secretary of Defense for global strategic affairs, stated, "It's not where is Iran going. It is where is anyone [in the world] going that has offensive missile capabilities."[165] The difficulty for the United States and its NATO allies is that Russia continues to reject the claim that BMD systems are directed at threats from the Middle East and East Asia.

Even if the threat from Iran were to recede significantly, the United States would still feel the need to reassure its allies in Central and Eastern Europe of its commitment to their security. It would be a strategic error for the United States to withdraw its missile defense commitments in 2014 as Russia steps up its activity on NATO's borders. For countries such as Poland and Romania, the attraction of NATO missile defense lies in the establishment of a US presence (however limited) on their soil rather than the protection against Iranian missiles.

In the event that the United States were to explore at a later stage the possibility of a modification, postponement or even a cancellation of the

second and third phases of the EPAA because of a significantly reduced threat from Iran, it would need to consult closely with its NATO allies who would be affected by the decision. In such a scenario, the countries concerned could demand that the United States provide Patriot air defense batteries to take the place of the SM-3 interceptors which are removed. Indeed, the United States has already dispatched a Patriot training battery to Poland for exercises. While such a move would demonstrate that the United States remains firmly committed to the security of its NATO allies, it would not resolve the ongoing differences with the Russians over missile defense. Indeed, it would arguably exacerbate tensions between NATO and Russia since Patriot Air defense missiles could pose more of a threat to Moscow's strategic forces.[166]

The Debate over the Practicability of Missile Defense Systems

There is an argument that the NATO BMD system could be overcome by any country which is able to produce missiles. The US intelligence community itself has expressed concern about the availability of effective countermeasures that even developing countries could use to overcome missile defenses. Experts have argued that there is no sense in assuming that an adversary would produce technologically sophisticated missiles but not develop basic countermeasures such as decoys to enhance their effectiveness. It is also claimed that US BMD systems have not been tested under realistic conditions to substantiate the claim that they can counter threats from North Korea and Iran. Nevertheless, even if missile defenses do not work, they can still inflate tensions with adversaries who assume that such systems will work, leading to an increase in missile stockpiles.[167] Thus, according to this argument, missile defense constitutes the worst of both worlds: it is a waste of money, and even if it does work, it is still a force for instability.

Critics of BMD systems point to their high costs and general impracticality. The late Reuven Pedatzur, an Israeli defense specialist, argued that within the context of nuclear threats, missile defense cannot provide adequate protection. Analyzing Israel's strategy towards Iran, Pedatzur maintained that since a nuclear missile strike on Tel Aviv would be unbearable for Israel, the Arrow BMD system would only be relevant if it provided hermetic protection. However, it is impossible to guarantee hermetic protection.[168]

Nevertheless, advocates for missile defense can counter that the steep price of missile interceptors has to be weighed against the potential destruction to

human life and property that could be caused by a rocket or missile.[169] The pursuit of a security policy based upon deterrence without defense might have been applicable during the cold war era, when the United States and the Soviet Union accepted mutual vulnerability. In 2014, however, such a strategy involves considerable risk as the populations of the countries in question could be exposed to a danger of unacceptable damage from non-conventional missiles in the hands of an irrational adversary. The model of deterrence complemented by defense is one that applies in the post-cold war era. According to Uzi Rubin, a leading Israeli defense expert and a former director of Israel's missile defense organization, deterrence against nuclear threats is based upon a reliable and survivable retaliatory force. Survivability requires that a sufficient number of retaliatory forces are still operational following a surprise nuclear strike.[170] This is where BMD comes into the picture. In the event that Iran were to acquire a nuclear deterrent capability, it could be sufficiently emboldened to conduct aggression in the Gulf region or against Israel. In this situation, Washington believes that the threat or the actual use of force against Iran by the United States and its allies would have more credibility if it is backed by a European BMD system, rather than depending simply on precision-guided conventional weapons or a nuclear deterrent.[171] Thus, Rubin concludes that while it is universally accepted that BMD cannot provide a hermetic shield against the threat of ballistic missiles, even a partially successful missile shield can significantly complicate the planning of an adversary.[172]

Lessons from Israel

An additional point which has been overlooked by critics of missile defense is the positive impact that BMD can have on strengthening national morale. Thus, as long as BMD systems appear to be credible, they may succeed in strengthening the resolve of the public in times of war, even when their interception rate is relatively low, as with the case of the Patriots in Israel during the first Gulf War of 1991. Whatever the anticipated technical effectiveness of the interceptors, missile defenses do evidently appear to provide reassurance. This is borne out, for example, by the very positive response of the Israeli public to the Iron Dome system's success in intercepting missiles from Gaza both in 2012 and 2014. However, there is also the difficulty that highly effective missile defenses generate international expectations that the parties

possessing such systems should rely on defense and denial for deterrence rather than retaliation. Thus, Schulte has argued that Israel could have incurred higher international political costs during Operation Pillar of Defense with a more perfectly functioning missile defense system.[173] This argument is reinforced by Israel's experience during Operation Protective Edge of July 2014: according to Israeli defense experts, Iron Dome has achieved close to a 90 percent success rate in intercepting missiles fired at Israel's population while the operation was carried out against Hamas in Gaza.[174] As the Iron Dome system increases its effectiveness in intercepting missiles, Israel is under pressure to demonstrate to the international community that there is a justification in using military force and sending in combat troops into Gaza. Indeed, with the rising disparity between civilian casualties on the Israeli and Palestinian sides (as a result of the successful operation of the Iron Dome system), Israel is facing a stronger international reaction against the use of force.[175]

The argument that BMD heightens instability also requires further evaluation. There is a strong basis to support the view that missile defense can enhance stability. It provides other options for NATO members aside from pre-emption and retaliation, and widens the freedom of action for potential victims of attacks, since it ensures that they would not be compelled to respond automatically by conventional or nuclear means.[176] NATO policymakers have to prepare for the possibility of miscalculations and uncertainty in regard to how to deter revisionist states. Thus, BMD gives political leaders various options, providing time for diplomacy to work. Indeed, this view is reinforced, once again, by Israel's experience during Operation Pillar of Defense in November 2012, when the system's success in intercepting rockets from Gaza helped prevent significant civilian casualties, and lessened the public pressure on Israeli decision makers to order a ground offensive in Gaza. Although Israel's cabinet did eventually approve a ground campaign during Operation Protective Edge in July 2014, the effective operation of the missile defense system enabled Prime Minister Benjamin Netanyahu to withstand pressure to send forces into Gaza during the first ten days of the fighting. It appears that the decision to approve a ground campaign was not limited to the rocket attacks, and was linked to repeated attempts by terrorists to strike Israel by means of the tunnels from Gaza, and was taken after Hamas rejected calls for a ceasefire.

However, even if Iron Dome successfully intercepted the vast majority of Hamas rockets, this does not automatically mean that Israel's other missile defense systems such as David's Sling and the Arrow will perform as effectively. During Operation Protective Edge, many of the interceptors were not utilized since Iron Dome was able to detect that many of the rockets would not reach urban centers. In the event that Israel were to face a war on several fronts, with enemies firing hundreds of ballistic missiles a day, Israel's Arrow system would be compelled to utilize a larger number of interceptors with the danger that the system becomes saturated and therefore unable to perform as effectively.[177]

Nevertheless, the positive lessons from Israel's experiences with Iron Dome are certainly applicable to the ongoing efforts to strengthen Europe's missile defense system against the rising threat of ballistic missiles. Thus at a conference co-hosted by the German Marshall Fund (GMF) and the Polish National Defense Academy in Warsaw in March 2013, Poland's Deputy Minister of Defense, Robert Kupiecki, asserted that BMD systems must be established "a step ahead of a possible threat" to ensure that proper defenses are ready to address the dangers emerging from situations of heightened tension. He argued that there were lessons to be learned from Israel's experience in building its Iron Dome system which has proved effective against Hamas missiles fired from Gaza, in spite of earlier claims that it was a very expensive and possibly ineffective system. According to Kupiecki, the successes of Iron Dome attest to the importance of far-sightedness in decision-making.[178]

It is perhaps no coincidence that Poland, one of the leading supporters of the NATO missile defense shield within the Alliance, has expressed strong admiration for the Iron Dome system. As pointed out earlier in this paper, Poland is also planning to acquire new air and missile defense technologies to defend against lower-tier threats. This national system could be integrated with the NATO BMD system, and indicates that Poland is leaving nothing to chance in addressing threats both from near and further afield. While NATO policymakers are planning for longer range nonconventional threats, as opposed to the short-range conventional rockets which have been fired from Gaza, Israel's experience with its Iron Dome system can provide important lessons for NATO policy planners.

CONCLUSION

The BMD systems of the United States were originally established with a view to meeting the threat of the Soviet Union. President Reagan's SDI program was the high-water mark of Washington's efforts to neutralize the Soviet nuclear deterrent. However, in the years following the collapse of the Soviet Union and the end of the cold war, the United States shifted its attention to the new ballistic missile threats emanating from the Middle East and East Asia. While the Clinton administration initiated plans to develop a BMD system to address the threat from revisionist states, it was President George W. Bush who controversially announced the deployment of BMD installations in the Czech Republic and Poland as a means to protect US allies in Europe from the threat of revisionist states possessing WMD-capable ballistic missiles. Russia expressed fierce opposition to the US BMD system, viewing it as a threat to its nuclear deterrent. The Obama administration's decision to scrap the 'third site' and replace it with the flexible multi-phased EPAA system did not placate Moscow.

The claims by the United States and NATO, in general, that the BMD system in Europe is designed to deal with a missile threat from the Middle East rather than Russia, is largely borne out by the fact that the capabilities of the interceptors are too limited and their numbers too few to pose a threat to Moscow's strategic nuclear forces. While it is possible that the NATO BMD system could be adapted and improved in such a way that it could eventually acquire a limited capability against Russian ICBMs, this would not address the concerns of vulnerable Alliance member states regarding Moscow's intentions.

There is agreement among Alliance members that the BMD system is intended to defend Europe from the twin threats of ballistic missiles and WMD emanating from the Middle East. While NATO has not declared explicitly that the EPAA is designed to protect Europe from Iranian nuclear-armed ballistic missiles, US officials have openly stated on numerous occasions that the BMD system has been established with Iran in mind. While Russia

has never accepted this claim, it now argues that an agreement between the P5+1 and Iran should mean that there is no longer a justification for the NATO BMD system in Europe, since the Iranian threat will presumably be a diminished one. In response, NATO has declared that the dangers facing Europe emanate from a number of sources, and are limited not just to nuclear threats, but include also delivery means, as well as chemical, biological and conventional warheads.

There are several paradoxes at the heart of the NATO-Russia disagreements over missile defense. While Moscow has publicly downplayed the threat from Iran, there is actually genuine concern within Russian military and political circles over Tehran's capabilities. Thus, there is evidence to suggest that Russia has deployed a number of early warning radars to defend itself from a potential Iranian threat. From this perspective, it would be in the interest of both NATO and Russia to overcome their serious differences in order to jointly address the greater threat from revisionist regimes armed with ballistic missiles and WMD.

In recent years, both NATO and Russia have expressed a readiness to build cooperation in the BMD sphere, and have acknowledged the benefits of doing so. It is widely accepted that such cooperation would provide a far more effective response to the growing ballistic missile threat from the Middle East. However, developments during 2014 have demonstrated that there is little or no prospect of such cooperation in the near future. The growing tensions between Russia and the West over Ukraine are indicative of a general crisis of mistrust with geopolitical implications which are clearly noticeable also in the disagreements over NATO's BMD system. This system is viewed by the Putin government as a means to strengthen US political control over Russia's backyard.

The support of Alliance members such as Poland and the Baltic States for the BMD system is directly related to the presence of US forces on the ground maintaining and operating the radars and interceptors in this region. From an Eastern European perspective, these forces operate as a form of insurance against a Russian attack, but this has little to do with the missile defense system itself. As anxieties in Central and Eastern Europe rise over the perceived threat from Russia, there will be growing pressure on the United States and NATO to provide stronger military support to the countries in this region. This in turn will only strengthen Moscow's suspicions that the NATO BMD system is directed not at the Middle East but at Russia. In this

context, calls by Republican leaders for a revival of the Bush-era missile defense shield are counterproductive, since they will only reinforce the Kremlin's narrative that the NATO BMD system was always intended to undermine Russia. At the same time, Washington must learn from mistakes that were made following the decision to scrap the Bush-era BMD system in Eastern Europe, and engage in closer consultations with its allies in Europe.

Although the NATO BMD system is viewed by some as an issue that exacerbates tensions between the parties, the reality may be more complex. There is little evidence to suggest that relations between NATO and Russia would improve significantly if future deployments of the EPAA were halted. Indeed, Russia responded with indifference to the scrapping of the Bush administration's "third site" and the cancellation of the fourth phase of the EPAA, and has maintained its strong opposition to the BMD system. Arguably, the Kremlin perceives the public disagreements with the United States over BMD as a means to exploit longstanding grievances over Western overreach and to reassert Russia's leadership credentials. Thus, the stalemate between Washington and Moscow over missile defense can be viewed as an expression of the more general mistrust and conflicts of interest between the two parties.

On the one hand, serious questions remain over whether the NATO EPAA program, specifically, and BMD systems, in general, can succeed in deterring revisionist states possessing WMD-capable ballistic missiles. In the context of the interim agreement between the P5+1 and Iran, it can be argued that the plans to continue with future BMD deployments could be sending the wrong signal to Tehran, since they suggest a lack of confidence on the part of the US in its ability to stop the nuclear program by diplomatic, political or even military means. This may raise suspicions among certain Middle East countries threatened by Tehran that the United States will be resigned to containing an Iran armed with nuclear-capable ballistic missiles. Unless a comprehensive agreement is reached that addresses the weaponization question and significantly distances Tehran from the acquisition of a nuclear capability, a number of Alliance members could be facing the potential threat of Iranian nuclear-armed ballistic missiles by around 2018 – the year in which interceptors are due to be deployed in Poland as part of the third stage of the EPAA.

On the other hand, the United States has a responsibility to protect its allies from the threat posed by revisionist states armed with conventional

and WMD-capable ballistic missiles. To this end, the United States has also worked in close cooperation with Israel, the Gulf States and Japan to strengthen their defenses against the respective threats of Iran and North Korea. Thus, in the event that the efforts to stem nuclear proliferation are unsuccessful, the deployment of BMD systems in Europe, Israel, the Gulf region and East Asia are a hedge against failure. The United States and NATO view defense as a component that complements deterrence. Indeed, it can also be viewed as a form of deterrence ("deterrence by denial") since it seeks to dissuade a potential adversary by convincing it that its actions will be denied the benefits originally sought. A potential aggressor would have to take into account the strong probability that the retaliatory capabilities of the targeted country would survive intact as a result of the BMD system. Deterrence by denial must be backed up by the threat of punishment to be effective. Nevertheless, the deployment of interceptors and radars can significantly complicate the planning of adversaries while also devaluing the potential destructive impact of the aggressor's ballistic missiles. This argument works on the assumption that the adversary is a rational actor that carefully weighs up decisions in accordance with a cost-benefit calculus. Yet even if the adversary in question is not a rational actor, the BMD system will retain significant value as a hedge against deterrence failure.

Lessons for NATO from Israel's Experience with Iron Dome

In spite of the tremendously high costs of deploying and maintaining the NATO BMD system, it is still justified in terms of the overwhelming advantages it provides in a number of spheres. The very high cost of missile interceptors has to be weighed against the potential destruction to human life and property that could be caused by a missile which is not intercepted. Furthermore, the BMD system can play an important role in strengthening the morale of the public in a war situation, even in circumstances where it is not functioning at maximum efficiency, while providing leaders with time and decision space in crisis situations. This has already been demonstrated, to a certain degree, both in 2012 and 2014 within the context of Israel's experiences with conventional rocket attacks.

While this paper acknowledges that NATO policymakers are planning for longer range nonconventional threats, as opposed to the short-range conventional rockets which have been fired from Gaza, Israel's experience

with Iron Dome can provide instructive lessons for NATO policy planners as the Alliance BMD system is developed further in the face of the heightened twin threat of ballistic missiles and the proliferation of WMD.

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