EUROPEAN MISSILE DEFENSE: STRATEGIC IMPERATIVES FOR NATO AND RUSSIA

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European Missile Defense: Strategic Imperatives for NATO and Russia

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The North Atlantic Treaty Organization (NATO) has acknowledged the significant threat to the European continent posed by Iran’s development of ballistic missile technology and, in defiance of international sanctions, its suspected pursuit of nuclear weapons. For the United States and NATO, the deployment of a credible Ballistic Missile Defense (BMD) shield for the European continent is critical to deterring the Iranian regime from potential acts of aggression or extortion. To achieve this objective, it is in the best interests of the U.S. and NATO to garner Russian cooperation to deter Iran from leveraging its formidable ballistic missile arsenal. Building upon mutual interests and collective resolve as articulated at the 2010 NATO-Russia Lisbon summit, the United States, NATO, and Russia must develop credible measures to deter Iran from generating global fear and instability through its reckless agenda of proliferation and intimidation. This paper examines the current U.S./NATO missile defense strategy in Europe and will explore the strategic potential of a renewed NATO-Russia cooperative relationship for the purpose of dissuading, deterring and moderating Iranian nuclear ambitions and ballistic missile programs.
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The North Atlantic Treaty Organization (NATO) has acknowledged the significant threat to the European continent posed by Iran’s development of ballistic missile technology and, in defiance of international sanctions, its suspected pursuit of nuclear weapons. For the United States and NATO, the deployment of a credible Ballistic Missile Defense (BMD) shield for the European continent is critical to deterring the Iranian regime from potential acts of aggression or extortion. To achieve this objective, it is in the best interests of the U.S. and NATO to garner Russian cooperation to deter Iran from leveraging its formidable ballistic missile arsenal. Building upon mutual interests and collective resolve as articulated at the 2010 NATO-Russia Lisbon summit, the United States, NATO, and Russia must develop credible measures to deter Iran from generating global fear and instability through its reckless agenda of proliferation and intimidation. This paper examines the current U.S./NATO missile defense strategy in Europe and will explore the strategic potential of a renewed NATO-Russia cooperative relationship for the purpose of dissuading, deterring and moderating Iranian nuclear ambitions and ballistic missile programs.
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No arsenal or no weapon in the arsenals of the world is so formidable as the will and moral courage of free men and women.

—Ronald Reagan
40th President of the United States

The development and proliferation of nuclear weapons technology, coupled with ballistic missile delivery capabilities, pose a threat to the security of Europe, the Middle East, and Asia.¹ This threat manifests itself most dangerously in the policies and strategies emanating from the Islamic Republic of Iran. Iran’s growing offensive missile capabilities, coupled with its ambition to become a nuclear-armed hegemon within Southwest Asia, has led many observers to conclude that their geo-political objectives could have serious regional and global security implications. Within a decade, Iran can generate a first-strike capability to directly threaten the European continent. With this capability, Iran would pose: an existential threat to Israel; it would disrupt Middle Eastern oil distribution and thereby jeopardize the global economy; it could embolden violent extremists throughout the world in the name of Islamic Jihad; it could trigger a cascading defensive proliferation of nuclear capabilities among such middle eastern nations as Egypt, Saudi Arabia, Syria, and the United Arab Emirates; it could paralyze the North Atlantic Treaty Organization (NATO) by coercing key members to waver on matters of national policy or alliance commitments by withholding or withdrawing support for military interventions or for economic sanctions against Iranian provocations.

In view of these risks, it is a vital United States security objective to dissuade and deter Iran from pursuing a reckless agenda of offensive behavior and international
coercion. For the United States to achieve this objective, it must reassure the NATO alliance of its commitment to European security by significantly contributing to the establishment and sustainment of a credible European missile defense architecture. To this end, the United States is partnering with its NATO allies in the development of an integrated Ballistic Missile Defense (BMD) system in Europe. Although this U.S./NATO BMD initiative would be a formidable stand-alone measure, its collective capability to deter Iran across the depth and breadth of its capabilities would be greatly enhanced if it included committed Russian support across the political, economic, and military spectrum. Therefore, a cooperative agreement with Russia for the collective defense of Europe has become a core objective of the NATO alliance. This initiative has the unanimous support of the 28 members of NATO, and was among the principal issues addressed at the November 2010 NATO-Russia summit in Lisbon, Portugal.

As the successor to the former Soviet Union and the catalyst for the creation of the NATO alliance, Russia’s attendance at the Lisbon summit and its agreement in principle to a limited partnership with NATO to support the European BMD initiative was viewed by NATO Secretary-General Anders Fogh Rasmussen and Russian President Dmitry Medvedev as an "historic" step forward. President Barack Obama lauded this partnership: “In Lisbon we…make it clear that NATO sees Russia as a partner, not an adversary.” NATO's outreach to Russia as a partner in European missile defense not only represented an unprecedented breakthrough in international cooperation among former Cold War adversaries, but also closed a strategic gap in the international unity of effort required to dissuade and deter Iran from pursuing their destabilizing and threatening policies.
This paper examines the construct of the emerging European BMD architecture, as well as the historical background of twenty-first century U.S. and European missile defense strategies. Additionally, the strategic potential of a renewed NATO-Russia cooperative relationship focused on dissuading, deterring and moderating Iranian behavior, policies, and strategies with regard to its nuclear ambitions and ballistic missile capabilities is explored. It then offers recommended courses of action.

At the Lisbon summit, Russian President Medvedev outlined three conditions under which Russia would engage with NATO in a missile defense initiative: full Russian partnership with NATO; shared early-warning data; and designated zones of responsibility for missile defense. Some have questioned the leveraging of these conditions in part because Russia has no comparable missile defense system in operation. Additionally, many NATO members oppose the “designated zone” condition because they fear that Russian control over their missile defenses may leave them vulnerable to Russian coercion or manipulation. Clearly, despite significant improvements in diplomatic relations between NATO and Russia in recent years, some NATO members retain their Cold War distrust of the Russians.

Russia’s motivations for joining with NATO in this initiative may be varied and complex. The partnership gives Russian potential access to advanced western military technologies. It also reduces – or could eliminate – Russia’s need to commit their military and financial resources to defend against NATO forces. Additionally, potential threats to Russian economic interests could be mitigated through its partnership with NATO to deter Iran from using military threats or other coercive or disruptive courses of action. Such destabilizing Iranian actions, particularly in the volatile Middle East where a
major percentage of the world’s oil reserves remain in such high demand, could severely hamper global markets and thus cause economic problems for Russia.

The Lisbon summit culminated with the ratification of the new “Strategic Concept for the Defense and Security of the Members of the NATO Organization.” The New Strategic Concept affirms NATO’s commitment to “develop the capability to defend our populations and territories against ballistic missile attack as a core element of our collective defense [and to] actively seek cooperation on missile defense with Russia and other Euro-Atlantic partners.” The positive engagement with Russia at the Lisbon summit clearly established a foundation upon which to build further cooperation.

Ironically, with regard to the security of NATO members, the New Strategic Concept specifically omits any direct reference to future threats posed from Iran. This omission defers to the Turkish government’s disinclination to publicly antagonize the Iranian regime. Turkey is the only Islamic nation within the NATO alliance and the only NATO member that shares a common border with Iran. Therefore, to avoid any undue alienation or provocation, the NATO membership acknowledged Turkey’s objection to any negative characterization of the Islamic Republic. With this accommodation, NATO gained unanimous support for its New Strategic Concept. Additionally, this concession to Turkey preserved the possibility of strategically staging sensitive missile launch detection equipment and other systems in Turkey.

The Ballistic Missile Environment

Ballistic missiles are categorized by their maximum effective threat ranges: Short Range Ballistic Missiles (SRBM) - 1,000 kilometers or less; Medium Range Ballistic Missiles (MRBM) - 1,000 to 3,000 kilometers; Intermediate Range Ballistic Missiles (IRBM) - 3,000 to 5,500 kilometers; and Intercontinental Ballistic Missiles (ICBM) - 5,500
kilometers or greater. As of 2008, excluding the missiles possessed by the United States, Russia, China, and the combined NATO members, there were an estimated 5,900 or more ballistic missiles in the arsenals of various countries, to include Iran. Over 90 percent of these are believed to be SRBMs (5,500) and 6 percent are MRBMs (350). IRBM and ICBM missiles account for under 1 percent (less than 40).  

As of 2011, the U.S. was fielding four primary interceptor systems to counter these ballistic missile threats. The Patriot Advanced Capability-3 (PAC-3) for point defense against SRBM and MRBM threats in the lower atmosphere; the Terminal High Altitude Area Defense (THAAD) system for providing area defense against SRBM, MRMB, and IRBM missiles in the upper atmosphere; the sea-based SM-3 interceptor for MRBM and IRBM threats in the exo-atmosphere; and Ground-based Midcourse Defense (GMD) Interceptors for exo-atmospheric engagement of ICBM threats.

The current National Intelligence Estimate (NIE) does not find the U.S. homeland to be at imminent risk of ballistic missile attack. Although North Korea has demonstrated a limited capability to strike Alaska and Hawaii, the NIE designates Russia and China as the only world actors capable of launching an ICBM attack on the continental United States; the likelihood of an ICBM on the U.S. homeland is considered highly remote. However, leading U.S. BMD experts contend that forward-deployed U.S. and allied forces in Europe and the Middle East, as well as other partner nation interests, are imperiled by a formidable arsenal of IRBM, MRBM, and SRBM forces, many of which are held by Iran.

The Bush Administration – Defending Against the ICBM Threat

In 2007, the Bush administration’s Fiscal Year (FY) 2008 defense budget included approximately $310 million as an initial investment in the design, construction,
and deployment of a GMD system in Europe.\textsuperscript{8} Due to technical and geographic requirements, this system would have been located in Eastern Europe. Additionally, the plan included the deployment of U.S. military personnel to operate the system, which would have consisted of 10 ground-based interceptor missiles in Poland and an X-Band radar system (known as the European Midcourse Radar [EMR]) in the Czech Republic. The EMR was designed to receive cueing and tracking data from U.S. Navy Aegis-equipped Long Range Surveillance and Tracking ships. Additionally, the EMR would have been augmented by 1 or 2 other strategically located transportable radar surveillance systems (known as the AN/TPY-2) capable of providing early warning and precise tracking and cueing data to the EMR system. These transportable radar systems are built around a high-resolution, phased array radar specifically designed for U.S. Ballistic Missile Defense. As of September 2010, only 7 of the 14 total planned systems were operational.\textsuperscript{9}

This European GMD system would have augmented two similar GMD systems which are located in Alaska and California. These interceptor systems became operational in 2004 in response to a growing long-range missile threat from North Korea. The proposed European GMD system, however, was specifically intended to provide area defense-in-depth for the U.S. homeland (vice a smaller regional defense) against an Iranian ICBM attack. Further, they would have provided some protection – albeit limited – to U.S. forces and other NATO interests in Europe against Iranian IRBM and MRBM threats.\textsuperscript{10} The European GMD interceptors, which differed slightly from the variants in use in California and Alaska, were tested extensively from 2002-2006: Their effectiveness in defending against IRBM and MRBM threats received mixed reviews.
Some missile defense experts argued that Patriot, THAAD, or even U.S. Navy Aegis SM-3 BMD systems (none of which had the capability to defend against an ICBM) would be more effective alternatives to counter the current Iranian IRBM and MRBM threats. However, the U.S. Missile Defense Agency (MDA) prevailed in its argument that those systems would not have been effective longer-term options for defending the U.S. homeland against future Iranian ICBM capabilities.

The Bush Administration’s proposed European GMD system was not negotiated through the provisions of the NATO alliance, nor was it specifically designed – or fully capable – to provide European missile defense protection against Iranian MRBM and IRBM threats. Yet, despite its limited capability, NATO leaders later consented to view this GMD initiative as a contribution to its own emerging ballistic missile defense requirement. This new system, however, was not eagerly embraced by the legislative bodies of either Poland or the Czech Republic. The principal benefits for serving as host nations for this system included monetary incentives from the United States and, most significantly, the perception of enhanced security since U.S. military forces would be stationed on their home soil. Following the 2008 Russian invasion of Georgia, perceptions of U.S. military support were particularly appealing. However, despite determined efforts for approval by their respective heads of state, the GMD proposal was never ratified by Poland or the Czech Republic due to domestic opposition.

The U.S. proposal also faced harsh criticism from the Russian government. The presence of such a sophisticated BMD system so close to its homeland was perceived by the Russians as a threat to the credibility of its strategic missile force. In fact, the Russians viewed the presence of these permanent U.S. systems as a challenge to their
strategic influence in Eastern Europe. The Russians charged that this system had an offensive capability as well – a claim that the United States denied. In response to this GMD initiative, Russian leaders eventually declared their intention to target the proposed installations in Poland and the Czech Republic with its own missile forces.

However, in a diplomatic effort to provide an incentive for the U.S. to cancel the deployment of its European GMD system, former Russian President Vladimir Putin offered the U.S. and NATO access to sensitive 1980s era Russian fixed radar equipment in Azerbaijan. In theory, this Russian radar facility offered valuable potential for providing early warning of ballistic missile launches from Iran due to its ideal geographic location. In response, however, MDA Deputy Director, Major General Patrick O'Reilly (O'Reilly later became MDA Director) personally visited the facility to assess the feasibility of integrating this system into a U.S.-led missile shield for Europe. O'Reilly determined that this radar could not serve as a suitable replacement for the advanced American systems due to its limited capabilities for tracking individual targets and for providing guidance for U.S. interceptors. Although this offer was not formally accepted by the United States, it constituted a strategic opening with the Russians that held the possibility of further cooperation. This Russian offer continues to elicit discussion within the U.S. missile defense community. It may portend further negotiations.

Ultimately, the contentious European GMD issue was resolved in 2009 when President Obama agreed to reverse the Bush Administration plan for deploying the GMD interceptors. This decision, however, became a source of additional controversy. Political opponents and some U.S. missile defense experts asserted that President
Obama succumbed to Russian demands without having gained meaningful concessions or assurances in return. Some claimed that Russia’s offer to share the Azerbaijani radar facility added no significant value to the U.S missile defense system. Additionally, President Obama was criticized for alienating the Polish and Czech leadership by canceling the GMD system after they had invested considerable political capital in support of this initiative. The Obama administration maintained that the GMD system was canceled due to the updated intelligence estimate of the Iranian missile threat, not in acquiescence to Russian demands.\textsuperscript{14} Canceling the European GMD system arguably de-escalated a potential conflict between the United States and Russia. Indeed, it created a cooperative environment in which the United States and Russia could build upon their mutual interests – particularly regarding Iran. Following this reconciliation, NATO Secretary General Rasmussen called for a strategic partnership between Russia and the NATO alliance that explicitly involved technological cooperation on missile defense systems.\textsuperscript{15}

\textbf{The Obama Administration – Reassessing BMD Strategy to meet the Iranian Threat}

In 2009, in accord with a Presidential Directive and a Congressionally mandated comprehensive review of BMD policies, strategies, plans, and programs, the Secretary of Defense and the Chairman of the Joint Chiefs of Staff recommended that the Obama Administration significantly change U.S. missile defense strategy. As articulated in the 2010 DoD Ballistic Missile Defense Review (BMDR), this strategy specifies six essential requirements for defending against current and projected ballistic missile threats facing the United States and its allies:

1. Commitment to defend the U.S. homeland against limited long-range missile attacks;
2. Commitment to defend deployed U.S. forces and U.S. allies against regional missile threats;
3. Adoption of a robust testing regime;
4. An affordable missile defense program, that emphasizes more mature technologies over less advanced ones;
5. A hedging strategy for addressing future missile threats; and
6. Expanded international cooperation on ballistic missile defense.\(^{16}\)

To meet these requirements, a new proposal known as the Phased, Adaptive Approach (PAA) was developed and approved for implementation to defend U.S. interests in Europe – and in the long-term – to contribute to the broader area ballistic missile defense of the entire European continent. The PAA was designed as a flexible and cost effective measure that incorporated an updated intelligence estimate of Iranian offensive ballistic missile capabilities and also exploited key improvements in U.S. missile defense technology and capabilities to counter the near-and mid-term threats posed by Iran. Although the PAA is a unilateral U.S. initiative, it will be the foundation of an emerging integrated NATO missile defense system.

*Improved U.S. BMD Technology.* The revised U.S. and NATO missile defense strategy calls for the ongoing expansion of current technology and capability as well as research and development of future capabilities. One such capability is the SM-3 Interceptor missile, which is currently deployed on some U.S. Navy Aegis Cruisers and Destroyers. The SM-3 Block IA is the operational variant of this interceptor, and several advanced versions of this missile are undergoin pre-deployment tests and evaluations.
The SM-3 Block 1A, as well as its future variants, will become the primary interceptor employed in the PAA system.

In 2007, the People’s Republic of China successfully demonstrated its ballistic missile/interceptor capabilities by targeting and destroying one of its own obsolete weather satellites in a 537 mile space orbit. This achievement represented a major advancement in Chinese missile technology. It also exposed a potential vulnerability of U.S. space-based missile defense systems – which can only be mitigated through continued technological innovation and capability development. Addressing the importance of this requirement, the U.S. employed a sea-based SM-3 missile the following year to destroy a malfunctioning U.S. surveillance satellite. This firing validated the missile’s “hit to kill” capabilities. This strategically significant shoot-down publicly demonstrated, not only to China but to the North Korea and Iran as well, the capability of the U.S. to engage and destroy an exo-atmospheric target – a vital capability for defending against any ICBM threat.

Updated Iranian Missile Threat Assessment. The U.S. Intelligence community determined that Iran’s SRBM and MRBM capabilities were expanding more rapidly than had been previously estimated. Conversely, the development of a viable Iranian ICBM threat was lagging behind prior estimates. In July 2009, MDA Director Lieutenant General Patrick O’Reilly reported that short-and medium-range missiles presented the greatest threat to American missile defenses. He further added that these types of missiles account for ninety-nine percent of the current threat.

As the result of an extensive ballistic missile research and development program, Iranian SRBM and MRBM systems dramatically upgraded their lethality, rapid
deployment capability (due to their numerous mobile launch systems), and overall effectiveness by developing new propellants, improved guidance systems, and larger payloads. The Iranians successfully modified and test-launched a medium-range, solid-fueled Shahab-3 missile with an effective range of 2,000 km. The original Shahab-3 missile is liquid-fueled, and almost identical to the North Korean No Dong-1 missile. North Korea and Iran have likely engaged in a collaborative development of ballistic missile technology; certainly Iran has funded North Korea's missile research and development program. In return, the North Korean regime has been supplying missile technology and hardware to the Iranians. However, Iranian modifications to the Shahab-3 missile represented a significant advancement in the domestic capabilities of their MRBM program.\textsuperscript{19} Solid fuels in missile technology enable users to store and transport missiles while fully fueled so they are ready for immediate deployment and launch. This valuable feature significantly reduces the time and manpower required for launch as fuel storage and pumping equipment are no longer required. Additionally, U.S. sensors can not readily detect timely warning indicators for the launching of solid-fueled missiles. Therefore, solid fueled missiles represent a significant technological advancement in Iranian domestic missile technology that enhance Iran’s first-strike capabilities. These improvements in Iran’s MRBM program could eventually give Iran the destabilizing option of holding population centers and other strategically significant targets at risk, not only in Israel but in southern Europe as well.\textsuperscript{20}

With regard to Iranian ICBM capabilities, prior assessments that indicated the possibility of an operational system as early as 2009 have since proven inaccurate. Revised assessments from national intelligence sources regarding Iran’s research and
development programs currently indicate that an operational ICBM will not be deployed before 2015. Future longer range Iranian missiles have been referred to as the Shahab-4, Shahab-5, and Shahab-6; they are assessed as being modeled after North Korea’s Tae Po Dong-1 or the Russian SS-4 or SS-5 variants. However, none of these missiles are confirmed to have been developed or deployed by the Iranians. Additionally, despite their recent technological advancements, Iranians have not demonstrated the capability to design and build the advanced guidance systems needed to pose a viable ICBM threat. It can be argued that the lack of accuracy in Iranian guidance systems may lead to their reliance on nuclear, radiological, or chemical warheads for their ballistic missiles. Additional intelligence estimates, however, indicate that the Iranians have not engineered the payload and other weaponeering requirements for delivering a weapon of mass destruction (WMD) via this kind of delivery vehicle.

Although Iran is believed to have successfully launched a Safir Space Launch Vehicle in 2009 (which demonstrates technologies applicable for the development of an ICBM), an operational ICBM threat is, none the less, considered to be several years from fruition. Accordingly, the earlier proposal for a GMD system in Europe to defend the continental U.S. against an immature Iranian ICBM threat was eventually deemed unnecessary. Thus the plan for deploying the PAA as the U.S. contribution to a broader integrated missile defense system for all NATO partner nations has since been approved. This contribution will also provide a long-term defense against future Iranian ICBM threats.
The Phased, Adaptive Approach

As a result of the rapid technological improvements in U.S. missile defense capabilities and the updated assessment of the Iranian ballistic missile threat, the need for strategic flexibility, adaptability, and suitability – as well as cost effectiveness in European missile defense architecture – had to be addressed. The PAA concept incorporates relevant U.S. technologies and adaptive characteristics necessary to respond to the current and near-term Iranian ballistic missile threat. Further, it keeps pace with potential longer-term capability advancements. This will be accomplished through a four-phased approach.

Phase 1. Phase 1 of the PAA becomes operational in 2011. It will employ existing weapon system technologies to counter the Iranian SRBM and MRBM threat. The system will consist of the dedicated presence of U.S. Navy Aegis BMD capable Destroyers and Cruisers employing the SM-3 Block 1A Interceptor missile. It will also include forward-deployed AN/TPY-2 Radar systems. Phase 1 will focus specifically on the defense of U.S. forces and other European interests in southern Europe and the Mediterranean.

Phase 2. The follow-on variant of the SM-3 (Block IB) will be deployed in 2015. It will include a land-based component to augment the sea-based Aegis platforms. This land-based component - known as “Aegis Ashore” - will provide for greater coverage of the defended areas of the European continent. Romania has agreed in principle to host the this land-based facility, but final negotiations for basing rights remain ongoing with the U.S. State Department.23

Phase 3. A second land-based component will become operational in 2018. It will include the further advanced SM-3 Block IIA missile. This upgrade will add the capability
to defend against the IRBM threat and will further extend defended areas into northern Europe. The Polish Government, pending final ratification, has agreed to amend the original missile basing agreement in order to host the land-based SM-3 missiles for Phase 3 of the PAA.²⁴

Phase 4. In 2020, the U.S. will further expand its missile defense shield by deploying the SM-3 Block IIB variant of the interceptor, which will provide an early engagement capability against a future ICBM threat.²⁵

**NATO ALTBMD C2 and PAA Interoperability.** Consistent with the commitments made at the 2010 Lisbon summit, the PAA will serve as the U.S. contribution to a robust European missile defense architecture that includes layers of sensors, interceptor systems, communications systems, and an integrated command and control network referred to as Active Layered Theater Ballistic Missile Defense (ALTBMD). Additionally, the ALTBMD capability will be expanded to provide layered protection for deployed military units as well as all NATO territories and population centers.²⁶

By design, the SM-3 and AN/TPY-2 components of the PAA will provide an “upper tier” area missile defense capability, which provides the earliest opportunity to engage incoming MRBM or IRBM missiles. By contrast, “lower tier” defenses are ineffective against MRBM and IRBM threats due to limitations in velocity and re-entry angles. Lower tier systems, much of which will be supplied by other NATO partners, will be integrated with the U.S. systems through the expansion of NATO’s “layered” ALTBMD Command and Control (C2) system. These systems will provide second and third shot opportunities against SRBM threats to enhance European protection.²⁷

Specifically, the role of lower tier assets such as the Patriot (PAC-3) in the
PAA/ALTBMD architecture is to provide a point (vice area) missile defense capability for deployed U.S./NATO forces, which may also include those in eastern Turkey.

The primary tactical command and control element for NATO theater air and missile defense is known as the NATO Air Command and Control System (ACCS). In the continuing effort to improve coalition interoperability among various systems employed by NATO, the Medium Extended Air Defense System (MEADS) was developed as a joint venture among the United States, Germany, and Italy. MEADS is a mobile air and missile defense system that was designed to replace the PAC-3 and other NATO legacy point defense systems.28 In 2010, the MEADS system was successfully integrated with the NATO ACCS in a simulation conducted during Joint Project Optic Windmill (JPOW), which used the ALTBMD Integration Test Bed. The JPOW results validated key coalition interoperability objectives for the integration of the MEADS, ACCS, and ALTBMD command and control systems.29 The NATO ALTBMD Program Office will continue its efforts to improve interoperability among the various BMD support networks; it will also continue to upgrade the NATO C2 system for Theater BMD in incremental steps through 2018.

Seamless C2 integration and interoperability between NATO ALTBMD and PAA are also critical requirements for this future multi-national missile defense network. The U.S. Command and Control Battle Management and Communication (C2BMC) system is a key component in PAA. C2BMC integrates the essential elements of command and control; it provides battle/sensor management and various communication tools necessary for a coordinated BMD system. Additionally, it provides the vital controlling capability for multiple AN/TPY-2 radar systems (imperative components of the PAA) and
also incorporates a layer of defense against computer network attack. In July 2010, the C2BMC system was installed at the U.S European Command (EUCOM) Operations Center to support Aegis BMD operations. Subsequently, the system successfully demonstrated initial interoperability with NATO ALTBMD. Future software upgrades for C2BMC will continue to enhance the system’s integration into the PAA and compatibility with an ALTBMD architecture. In August 2011, C2BMC will be deployed to the U.S Central Command (CENTCOM) Operations Center. 

Resident C2BMC capability in both of these Geographic Combatant Command Centers critically bridges the Area of Responsibility (AOR) seams that impact cueing, tracking, and engagement coordination requirements between EUCOM and CENTCOM to defend the European continent from an attack originating from the CENTCOM AOR.

**Integrating Diplomacy: Defining the Common Interests of NATO and Russia**

*Resetting Relations with Russia.* In addition to the strained U.S./Russian relations caused by the American GMD initiative in Europe, the Russian military incursion into the Caucasus region was viewed by NATO and the United States as a significant destabilizing event. This 5-day Russian campaign in response to separatist activity in Georgia strategically impacted long-term NATO expansion. Consideration of additional former Soviet bloc nations into the Alliance received greater scrutiny because of the NATO requirement to defend its allies from external aggression – to include Russia. Additionally, NATO leaders determined that further expansion of the Alliance jeopardized the development of longer term common interests between NATO and Russia.

Other common interests between NATO and Russia include: countering the proliferation of WMD; reduction of U.S. and Russian strategic arsenals; providing
energy security – particularly in the development of the Arctic resources; collaborative efforts in cyber security; combating trans-national criminal and terrorist activity; ensuring regional stability; and development of a viable and sustainable NATO exit strategy for Afghanistan.\textsuperscript{31}

Diplomatic initiatives between the United States, NATO and Russia have produced a significant improvement in their relations since the Russian invasion of Georgia. From a NATO perspective, diplomatic measures across the political spectrum in pursuit of common interests with Russia are instrumental in shaping Russian perceptions and attitudes. Most significantly, they can lead to Russian actions that contribute to NATO’s long-term objectives – to include the deterrence of Iran.

In this regard, a major common interest for the U.S., NATO, and Russia is to sustain the ongoing support of the International Security Assistance Force (ISAF) in Afghanistan. In view of the prolonged – and ultimately failed – Soviet military excursion into Afghanistan in the 1980s, the establishment of a stable and functional regime in Afghanistan is clearly in Russia’s interest – as well as the interest of the Central Asian region.

*The U.S., NATO, Russia and ISAF.* The essential and enduring purpose of the NATO alliance is to safeguard the sovereignty and security of its entire membership by all necessary political and military means. Accordingly, a NATO military response can be authorized under Article 5 of the NATO charter which affirms “if a NATO member is the victim of an armed attack, each and every other member of the Alliance will consider this act of violence as an armed attack against all members and will take the actions it
deems necessary to assist the ally attacked.\textsuperscript{32} Without exception, a ballistic missile attack from Iran against any NATO member would be just cause for invoking Article 5.

Since the formation of the NATO alliance in 1949, only the 9/11 attacks on the United States by Al Qaeda have triggered the implementation of Article 5. In response to the 9/11 attacks, the United States launched military operations in October 2001 with the objective of removing the ruling Taliban regime from Afghanistan, which had given safe haven to Al Qaeda. In December 2001, in accord with United Nations Security Council Resolution (UNSCR) 1386, the ISAF was established in Afghanistan. ISAF coalition was initially charged with securing Kabul and the surrounding areas from the Taliban, Al Qaeda, and other warlords in order to provide for the establishment of the Afghan Transitional Administration. In August 2003, in accord with UN Security Council authorization, NATO assumed command and thereby full responsibility for the ISAF mission, which then began to incrementally increase its authority and purview in Afghanistan.\textsuperscript{33}

In view of the catastrophic damage inflicted from the attacks of 9/11 and the realization that the welfare of the global community could be further jeopardized by additional attacks, denying terrorist safe havens and securing a stable and legitimate government in Afghanistan became a vital interest of the United States and its NATO allies. In recent years, Russian citizens have also been the victim of armed terrorist attacks, such as the Beslan School hostage crisis perpetrated by Chechan militants in North Ossetia in 2004.\textsuperscript{34} Therefore, Russian cooperation – or at least acquiescence – remains a critical component for waging this military and diplomatic campaign against terrorist activities.
Among the collaborative initiatives with Russia resulting from the Lisbon summit is the development of additional logistic support routes into Afghanistan as well as enhanced lines of communication for the ISAF forces. NATO and Russia reached agreement on the transportation of non-lethal equipment by rail along the supply routes between the Russian Federation, Ukraine, Uzbekistan, and Kazakhstan. This logistical support route was developed for use by NATO forces; it was later expanded at the Lisbon summit to include non-NATO members.35

NATO-Russian cooperation in Afghanistan also includes providing counter-narcotic training for Afghani and other regional security personnel. Since its inception in 2005, more than 1,000 officers have been trained in Russia at the Counter-Narcotics Training Center in Domodedovo. At the Lisbon summit, the NATO-Russia Council agreed to the establishment of a second training center in St Petersburg. Furthermore, a NATO-Russian Helicopter maintenance agreement was reached; it is designed to improve the Afghan Armed Forces’ ability to conduct and sustain rotary-wing operations.36 Securing this kind of Russian cooperation in support of ISAF objectives is clearly in the best interests of the United States and NATO. This cooperation also strengthens the strategic framework for the collective deterrence of Iran.

Russian Cooperation in Negotiating Sanctions. As the Iranian threat has matured since the turn of the 21st century, various Russian entities had been, in part, responsible for supplying military hardware and technology to the Islamic republic. Specifically, Russia’s state arms exporter Rosoboronexport, The Moscow Aviation Institute, The Glavkosmos Corporation, The Baltic State Technical University, and The Mendeleyev University of Chemical Technology of Russia have all been sanctioned by the U.S.
government for selling various ballistic missile and nuclear technology to Iran. However, in 2010, after securing Russian support in the United Nations (UN) for new sanctions against Iran in response to its uranium enrichment for the development of nuclear weapons, the Obama administration lifted the sanctions against these Russian organizations. President Obama justified lifting these sanctions as an appropriate response to “[Russian improvements] in monitoring its trade with Iran.” These favorable Russian initiatives in support of U.S. and NATO interests produced positive strategic effects in the Middle Eastern region and further advanced the emerging cooperative environment with Russia.

The 15-member UN Security Council, to include the Russian delegation, later agreed to another resolution that banned the sale of eight categories of conventional weapons to Iran, which included various missile systems. However, sales of defensive surface-to-air missile systems to Iran were not included in this round of sanctions. Although the Russians had a prior agreement with Tehran to sell them the highly advanced S-300 surface-to-air defensive missile system, the Russians unilaterally reneged on this transaction with Iran, despite the loss of over 800 million dollars in weapons sales. The S-300 missile system would have been a vital component in a mobile, long-range Iranian air defense network, which would have significantly deterred a possible Israeli or U.S. strike against Iranian nuclear facilities. Additionally, the Russian government banned other financial transactions with Iran. For the near-term, it has also denied entry visas for Iranian nuclear engineers and military delegations who were seeking access to various Russian establishments. The United States and its
NATO allies hailed these Russian decisions as major steps forward in advancing a unified commitment to deter Iranian military aggression.\textsuperscript{39} 

U.S./Russian Strategic Arms Reduction. In December 2010 and January 2011, the U.S. Senate and the Russian Federation Council ratified the 2010 Strategic Arms Reduction Treaty (START 2010 or “New START”).\textsuperscript{40} This historic agreement, which succeeds the 1991 Strategic Arms Reduction Treaty (which expired in 2009), specifically targets long-range nuclear weapon systems by significantly reducing the number of U.S. and Russian strategic missile launchers and warheads. Further, it establishes a new mutual inspection process for verification purposes.\textsuperscript{41} Additionally, this agreement does not inhibit the United States from continuing its research and development programs for missile defense systems. Russia, however, remains concerned that continued U.S. technological advances in missile defense capabilities could further reduce the effectiveness of Russian strategic forces. Accordingly, Russia reserves the option to withdraw from the START 2010 agreement in the future.\textsuperscript{42} This acknowledged strategic risk notwithstanding, START 2010 is further evidence of renewed U.S./Russian commitment to sustain their strategic cooperation. This U.S./Russian cooperation enhances U.S. and NATO interests in pursuit of regional security. 

Russian Incentives. From a Russian perspective, there is much to be gained by overcoming the animosities and mistrust that had previously characterized Russia’s relationship with the United States and the NATO alliance. Improved Russian relations with NATO can positively impact its bi-lateral relations with many Western nations to include Germany, Great Britain, France, and Canada. These improved relations could
then enhance Russian domestic efforts to enact political and economic reforms. Additionally, Russia could leverage a cooperative relationship with NATO to acquire advanced Western technologies needed for modernizing their military forces and expanding their industrial and economic bases.\textsuperscript{43}

With regard to European missile defense and the deterrence of Iran, positively engaging with NATO in this effort, as well as supporting the United Nations Security Council's sanctions against Iran, could bolster Russia's international image as a responsible contributor to the preservation of regional stability and security, and to mitigate WMD threats.

Conclusions

The 1979 Iranian Revolution gave rise to a radical fundamentalist Islamic movement that has profoundly shaped the current strategic environment. Over three decades later, the threat of global thermal nuclear war between the super powers of the United States and the former Soviet Union, and the associated confrontation between the NATO alliance and the former Warsaw Pact, has been replaced by serious threats from rogue nations such as Iran. These new actors remain defiant in the face of international condemnation and economic sanctions. With its formidable ballistic missile arsenal and nuclear weapons development program, the Islamic Republic of Iran is the world's dominant Islamic state military power and a looming threat in the Middle East region. Within the next decade, Iran could develop a first-strike capability against NATO member capitals – to include the United States – with ballistic missiles armed with WMD-charged warheads. This potential threat must be deterred or, if necessary, defeated.
Recommendations. To deter and defend against the Iranian threat, the United States and NATO must continue to employ their state-of-the-art technologies to develop effective missile defense capabilities. The Phased, Adaptive Approach, which will employ the latest variants of proven interceptor, surveillance, detection and tracking systems and which will integrate with the advanced command and control networks associated with the NATO ALTBMD program, provides the most effective option for missile defense in Europe. Deployment of the PAA should continue as planned until all phases of this missile defense concept have been fully implemented.

To ensure the success of PAA, however, it is a strategic imperative for the United States and the NATO alliance to garner the maximum level of support and cooperation from the Russian government. By having the Russians collaborate with NATO and the United States in this approach, the deterrent effect against Iran will be maximized diplomatically, militarily, and economically. Garnering Russian support within the United Nations Security Council in imposing sanctions against Iran for its dangerous and destabilizing programs of nuclear proliferation must also remain a critical U.S. security objective. Additionally, on-going efforts to isolate Iran from one of its former suppliers of missile and nuclear technology will hamper Iran’s ability to advance its military capabilities.

Building on a cooperative relationship with the Russian government to strengthen European missile defense will also benefit other U.S. and NATO programs and actions to include ongoing operations in Afghanistan. Sustaining Russian cooperation in support of the NATO-led ISAF must remain a policy objective for NATO and the United States.
Finally, the United States must retain its position of world leadership and superior strength in order to build partnerships and capacities for security and to positively reassure its NATO allies that it remains committed to the defense of Europe – as well as to the peace and prosperity of the global community.

Endnotes


22 “Missiles of the World,” *The Clairmont Institute*.


Ibid.


Ibid.


42 R. Craig Nation, “Results of the ‘Reset’ in U.S-Russian Relations,” (Paris: IFRI, Russia/NIS Center, July 2010), 22.