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THE NATIONAL MISSILE DEFENSE DEBATE
IN THE POST 9-11 CONTEXT

by

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A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

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Maxwell Air Force Base, Alabama

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Preface

September 11, 2001 is a day that no American will ever forget. The vicious attacks by al Qaeda terrorists against the Pentagon and twin towers of the World Trade Center on that day dramatically changed the lives of Americans everywhere. These attacks raised sentiments in some Americans that lay dormant for several years, such as love of family, faith in God, and patriotism to a great and powerful nation that will not falter, even in the direst of circumstances. Witnessing these profound changes in Americans, I wondered if the attacks would affect how people view the threat of weapons of mass destruction and their possible delivery systems. Coincidentally, one issue under hot debate at the same time was the development and deployment of a National Missile Defense. Seeing a natural relationship between the two, I embarked on a research journey to determine if the terrorist attacks had any effect on the National Missile Defense debate. This paper tackles that issue through comparative analysis and steps the reader through fifty-seven years of historical deliberation.

I am grateful for the superb guidance of my research advisor, Lieutenant Colonel (select) Greg Stanley, and extend my thanks. I further tender my gratitude to Mr. Allen Sexton for his expert advice. I give my sincere appreciation to my wife, Jennifer, and sons, Dalton and Zachary, for their patience, understanding, and support.

Abstract

The National Missile Defense (NMD) debate has raged for nearly sixty years. Generations of proponents and opponents have presented plausible arguments both for and against an NMD system, with a common and timeless thread running through them. However, the terrorist attacks of September 11, 2001 changed the world as Americans know it, to include their stance on some national security issues. The question this analysis seeks to answer is whether the September 11 terrorist attacks bear any effect on the NMD debate. If so, does the weight of the argument fall to the proponents or opponents of a NMD system, or do the strikes have little to no effect at all on the debate? This study is limited in historical research because the attacks occurred within seven months of this writing. Therefore, the majority of research support relies on original thought and living resources. That said, one can learn much from history, especially considering the debate is not a new one. It is the intent of this paper to lay a foundation for the debate by reaching into the annals of missile and homeland defense that stretch as far back as the immediate aftermath of World War II, marking the birth of the missile shield idea. With this as a base, the analysis transitions through the Reagan and Clinton years, before culminating in an examination of the current debate in light of the terrorist attacks in an effort to answer the root question. The study yields the conclusion that an NMD system is indeed vital to the security of the United States, at least in a limited

capacity to defend against a small salvo of missiles. The attacks of September 11 clearly amplify the need for a limited defense, as the face of the enemy has changed.

Chapter 1

Introduction

Yesterday, December 7, 1941 – a day which will live in infamy – the United States of America was suddenly and deliberately attacked...

—President Franklin D. Roosevelt

President Roosevelt made this historic statement during his somber, yet rallying address to Congress in response to the unsolicited attack on Pearl Harbor by Imperial Japanese Navy aircraft.¹ Sixty years later, a similar statement would not be out of place following the September 11, 2001 terrorist attacks in the United States. On that dark Tuesday, al Qaeda terrorists struck the World Trade Center and the Pentagon with hijacked United States commercial airliners, American symbols of financial, military, and technological prowess. A fanatical madman and his henchmen maliciously and tragically killed thousands of innocent children, women, and men and changed forever the lives of survivors, the victims' families, and Americans everywhere in countless ways. However, rather than bring the United States to her knees, a spirit of nationalism was reborn.

Drawing a parallel with the attack on Pearl Harbor, the United States flag found its place on American homes, businesses, and vehicles. Everyday-heroes emerged and were recognized. A determined and able President vowed to bring those responsible to justice and hold governments who harbor these criminals equally responsible. While some changed their minds on such matters in light of the attacks, others remained even more

steadfast and determined in their opinions. One such topic, at the heart of this analysis, is the National Missile Defense (NMD) debate.

The question this analysis seeks to answer is whether the September 11 terrorist attacks on the United States bear any effect on the NMD debate. If so, does the weight of the argument fall to the proponents or opponents of an NMD system? Or, do the strikes have little to no consequence at all on this deliberation? Immediately prior to the attacks, the NMD issue sizzled on the front burner of American diplomacy, and conjured heated and plausible debate on both sides of the matter. Within hours after the September 11 tragedy, proponents of a NMD system announced the need for a missile defense shield had well been validated by the attacks. With equal fervor, NMD opponents claimed the attacks proved the shielding of missile attack is a fruitless and frivolous endeavor.

Because this debate is not a new one, this paper will lay a foundation for the discussion by journeying through NMD history, from the concept's inception through the Reagan and Clinton years, and culminating with the current administration.

Notes

¹ John Toland, *Infamy* (New York, N.Y.: Berkley Publishing Corporation, 1982), 17.

Chapter 2

The Initial Debate

The so-called heavy ABM shield – at the present state of technology – would in effect be no adequate shield at all against a Soviet attack, but rather a strong inducement for the Soviets to vastly increase their own offensive forces.

—Honorable Robert S. McNamara

The United States' first real effort to research a ballistic missile defense (BMD) capability started in 1944 upon the realization that atomic bombs could be delivered via rockets. Initiated by the Army under the name Project Thumper, the program later merged with an Air Force pilotless aircraft program and was renamed Project Wizard. Project Wizard then competed with the Army's Nike BMD system until 1988 when the reigns were officially given to the Army to exclusively manage the nation's BMD program. For years to come, the Army would serve as a leading advocate for a missile shield. However, technical difficulties were plenty and political backing waned, dramatically stalling research efforts until 1960.¹

In the early 1960s, Secretary of Defense Robert McNamara emerged as a leading governmental opponent to NMD. McNamara reasoned that a defense against the Soviet Union was "both infeasible and counter-productive" as the Soviets could easily defeat such a system.² In 1967, though lacking an ICBM capability, the Chinese demonstrated

technological advancement by detonating a hydrogen bomb. Based on this perceived threat, the Army embarked on an aggressive campaign to regenerate NMD interest.³

To slow things down, McNamara redirected efforts from a fast deployment of the Nike-Zeus program to a long-term research program under the name of Project Defender. However, this program backfired on missile shield opponents, producing technical advancements that led to the Nike-X missile and, more importantly, squelched several key technological limitations pointed out by BMD skeptics. By decade's end, McNamara fueled the debate politically, advocating that a BMD system would start another superpower arms race.⁴ In 1967, McNamara recognized the growing pro-NMD sentiment among the military and several policy-makers. Under pressure, he compromised with a new program, which "called for a limited, "thin" system of defense to be deployed primarily as a hedge against China's small new nuclear arsenal." This new system, based on Nike-X technology, was named "Sentinel."⁵

Until Secretary McNamara politicized the issue, BMD was not a public debate. In fact, in a 1965 poll of the American public, two-thirds thought they were already protected by an in-place BMD system. With Sentinel, however, small protest factions emerged in numerous areas. This is not surprising because Sentinel interceptors were nuclear-tipped and to be stationed around major cities.⁶ The scientific community became enthralled in the ABM debate during the period 1967 to 1972, with President Nixon's proposal of a replacement system called "Safeguard." Safeguard differed from Sentinel in that it would only provide a limited point defense.⁷ It was the Safeguard system that Nixon used for arms control leverage with the Soviet Union, resulting in the SALT I treaty, the second part of which became known as the 1972 ABM Treaty.⁸

Under Article I of the ABM treaty, the United States and Soviet Union agree to restrict development and to not deploy ABM systems “for the defense of the territory of its country and not to provide a base for such a defense.”⁹ Article III allowed one exception by permitting each country to build two ABM sites, one for point defense of its capitol and one to defend an ICBM launch area. Amended by the 1974 ABM Protocol, this exception was further reduced to the point defense of a single location of choice.¹⁰ The Soviets erected a site to defend Moscow. The United States built a site at Grand Forks, North Dakota to protect a wing of ICBMs. Operational in 1975, the site was closed by Congress in 1976.¹¹

With the signing of the ABM treaty and elimination of the Grand Forks ABM site, the debate generally subsided. While it did nothing to ease the minds of the Army regarding the potential Chinese threat, the treaty did calm the nerves of most NMD opponents. However, the debate would reawaken a decade later with President Reagan’s nationally televised announcement of his administration’s intention to develop and employ a ballistic missile defense system. This proposed system, called the Strategic Defense Initiative (SDI) by the administration, was soon dubbed “Star Wars” by the press, however inappropriately, drawing a symbolism to the popular George Lucas film.¹² Such a label implies an emphasis on space-based lasers, which account for only a fraction of the predominantly ground-based architecture.

Notes

¹ Gordon R. Mitchell, *Strategic Deception* (East Lansing, Mich.: Michigan State University Press, 2000), 5-6.

² Edward Reiss, *The Strategic Defense Initiative* (New York, N.Y.: Cambridge University Press, 1992), 27.

³ Donald R. Baucom, *The Origins of SDI, 1944-1983* (Lawrence, Kans.: University Press of Kansas, 1992), 34.

Notes

⁴ Mitchell, 6-7.

⁵ Ibid, 7.

⁶ Ibid, 8.

⁷ Steven E. Miller and Stephen Van Evera, ed., *The Star Wars Controversy* (Princeton, N.J.: Princeton University Press, 1986), x.

⁸ Mitchell, 8.

⁹ Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, 26 May 1972.

¹⁰ Protocol to the Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, 3 July 1974.

¹¹ Reiss, 33.

¹² Miller and Van Evera, ix.

Chapter 3

“Star Wars”

What if free people could live secure in the knowledge that their security did not rest upon the threat of instant U.S. 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?

—President Ronald Reagan

With this statement in his March 23, 1983 nationally televised address, President Reagan launched the SDI program into full swing, and re-energized the NMD debate.¹ Two days later, the President issued National Security Decision Directive 85, which stated “I direct the development of an intensive effort to define a long term research and development program aimed at an ultimate goal of eliminating the threat posed by nuclear missiles.² To lead this charge, then Secretary of Defense Caspar Weinberger created within the Department the Strategic Defense Initiative Organization (SDIO), also known as the SDI Office, to conduct technological research and prove that the United States could defend against a massive missile attack from the Soviet Union.³ It is important to note that SDI itself was not a missile shield, but rather a “broad and intensive research program” which sought to render ballistic missiles “impotent and obsolete.”⁴

SDI was markedly different from its predecessors in terms of its proposal for a multi-layered defense. SDI sought to eliminate the ballistic missile threat from the Soviet

Union, and eventually other rogue nations, by intercepting missiles and warheads in all four phases of flight with varying types of weaponry. The SDI Office reasoned that the defense would get its “biggest bang for the buck” by intercepting missiles in the boost phase, before the warheads and decoys separate from the main rocket body. Those missiles surviving the boost phase attack would be engaged in the post-boost phase, accounting for roughly the next five minutes of flight. The mid-course phase is the longest period of flight, about twenty minutes, as surviving warheads travel through space and offers a third opportunity for interception. Finally, land-based interceptors would attack any warheads that penetrate the atmosphere over the United States mainland, as they descend the final two minutes to their respective targets.⁵ True to form, advocates and antagonists for and against an NMD system emerged, only this time the public became a lead actor in the debate. Major concerns on each side of the issue deserve examination.

Proponent Contentions

Proponents of SDI included government, military, some scientists, and a large portion of the American public. Politics and opportunity combined with the waning confidence in mutually assured destruction (MAD) as the answer to nuclear deterrence fueled the debate on the side of NMD proponents.

Agreeable Public

What made SDI differ from previous ABM debates was indeed the level of popular support. Several factors can be attributed to this popular approval. In the months building up to announcement of SDI, advocates reasoned that the American public would

be more receptive to a shield than the MAD strategy.⁶ In the President's March 1983 "Star Wars" address, the "Great Communicator" asked rhetorical questions that purposefully drew the public in to the debate. He asked, "Wouldn't it be better to save lives than to avenge them? Isn't it worth every investment necessary to free the world from the threat of nuclear war? Are we not capable of demonstrating our peaceful intentions by applying all our abilities and our ingenuity to achieving a truly lasting stability?"⁷ In this manner, he wisely forced the public to arrive at the answers themselves. Indeed, it would be hard to say "no" to these questions.

The President's intent was to have a system that would protect the American people rather than rely solely on retaliation as a deterrent. He aimed to make MAD obsolete. NMD proponents reasoned that a system incapable of initiating a conflict, yet capable of preventing war while not replacing deterrence is a logical solution. Furthermore, in an effort to draw collaborative favor on a global scale, they submitted that the shield could protect Americans and Allies alike.⁸

Political Push

From a political viewpoint, the NMD concept was consistent with several Republican Party goals. The call for a substantial build-up of the military was consistent with the predictable increase in the defense budget that would be necessary to support the SDI program. Superiority in military capabilities and technology, particularly over the Soviet Union was an objective. The administration's campaign platform clearly stood on ABM technology modernization.⁹ With Reagan's landslide election victory over President Carter in 1980, it is reasonable to assume that the majority of the American public was at least receptive to the idea of a missile shield.

Military Backing

The military, as a long time proponent of a NMD system, came forward with favorable concurrence of the initiative at what turns out to be a very opportune time. Specifically, the Pentagon favored the SDI concept because it came on the heels of the MX missile program, one of the military's top projects at the time. They reasoned that SDI research could produce a timely point defense for the mobile missile launch system.¹⁰ Compared to previous missile launcher defense concepts, SDI showed great promise. Prior concepts ranged from steel spikes protruding from the ground around missile launch silos to shotgun-like blasts of steel pellets to form a blanket over the missile field to defeat incoming warheads before they contacted the earth's surface. Other concepts included radar jamming of the fuses of incoming warheads, launching swarms of unguided mini-rockets toward intercept, and even the "fight fire with fire" approach of detonating nuclear charges on the ground to send a blanket of debris into the atmosphere.¹¹ With these cheap, quick fix, and discerning innovations, it is no wonder the military favored the technologically advanced SDI for point defense.

Financial Opportunity and Bargaining Chip

The literal and intrinsic value of an NMD system was evident on more than one front. Defense contractors became avid proponents because of the enormously lucrative opportunity that SDI presented them.¹² At stake was a multi-billion dollar industry for the multi-layered defense.

Just as Safeguard was used as bargaining leverage, proponents of SDI believed owning the technology of such a system alone would give the United States the upper hand in future negotiations with the Soviet Union toward further arms reductions. By

offering to delay deployment of such a system, it was rationalized the Soviet Union would perhaps agree to further reductions in their nuclear arsenal.¹³ This was a valid hope in light of unnerving strategic conditions in the early 1980s, as the Soviets added new mobile ICBMs to their weapons-store.¹⁴

Despite these arguments for the development of a NMD under the SDI program, numerous obstacles categorically prevented its successful deployment.

Opponent Contentions

The primary impediments to the deployment of an NMD system throughout the 1980s were treaty, budget, and technology restrictions. SDI was increasingly labeled “infeasible, extremely expensive and harmful to arms control.”¹⁵ Together these obstacles hampered SDI efforts significantly and served as the primary fodder for the opponents of an NMD shield.

1972 ABM Treaty

The ABM Treaty of 1972, still in effect, but abrogated during this writing, vehemently restricts the employment of a blanket missile defense shield. Signed on May 26, 1972 by United States President Richard Nixon and an arms control negotiator from the Soviet Union, Article V of the treaty states “Each Party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, space-based, or mobile land-based.”¹⁶ In order to deploy an SDI system, the United States would eventually have to withdraw from the treaty, as permitted by Article IV, which states “Each Party shall, in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of this

Treaty have jeopardized its supreme interests. It shall give notice of its decision to the other Party six months prior to withdrawal from the Treaty.”¹⁷ Recognizing this, the Soviets stood steadfast by the treaty and sought a ten-year extension, which was granted in 1987 in trade for reductions in her armed forces.¹⁸ Thus, a revival in arms control relegated SDI to a long-term research effort at best.

Politics and Money

When President Reagan announced the “Star Wars” endeavor in 1983, the United States budget amply provided for a massive military build-up consistent with the administration’s goals. However, once the major arms build-up was complete in 1985, “federal and trade deficits began to restrict the military budget.”¹⁹ Nevertheless, the defense budget was still about forty percent higher than the end of the 1970s. Therefore, saying the national budget was strapped and unable to fund SDI research would be a fallacy. Rather, the problem lay in contractor survival.

Initial estimates to deploy the initial segments of a shield ranged from \$69B to \$150B. By 1987, more than \$10B in SDI research funds was authorized for distribution to private sector corporations, federal laboratories, universities, and other organizations foreign and domestic. About seventy-five percent went to the corporations.²⁰ While initially zealous, corporation interest eventually waned because SDI increasingly presented less promise of an actual NMD deployment. Stuck in what seemed a perpetual research program, coupled with some unexpected major contract cancellations, corporations began to see more risk than profit by remaining in the competition.²¹

Faced with diminishing corporate interest and an opposing democratic majority in the Senate, which paid stricter attention to appropriations, a new Phase I estimate of \$69B

was released by SDI program managers in 1988. This new figure was forty percent less than the initial estimate, making an NMD system appear as affordable as the B-2 Bomber.²² Furthermore, it redirected the main effort from long-term research to a more near-term development.²³

Despite these changes, the damage was done, the faulty foundation laid by an absence of concrete and critical information. Never did SDI program managers submit specific architectural requirements, nor did they produce detailed system criteria by which researchers and corporations could gauge their efforts. Cost estimates for the initial stage were a broad approximation at best, and estimates for a fully operational system did not even garner a guess.²⁴ Even had the United States opted out of the ABM Treaty after the requisite six months notice, and had she managed to maintain corporate interest, the United States simply did not possess the technology at the time to see full development of a NMD system through to fruition.

Technology Lacking

Despite a lack of clear guidance, some limited experiments were conducted by 1986 toward the eventual realization of an NMD system. Experimentation in particle beam generation, space-based interceptors, guidance systems, sensors, and the famed Mid-Infrared Advanced Chemical Laser (MIRACL) was conducted with limited success. Still research efforts were plagued by an undefined architecture, vulnerabilities in space-based weapons, and unresolved computer problems. Furthermore, the majority of scientists crucial to SDI success adamantly professed such a system was not survivable, not cost effective, and certainly not capable of defending the United States population if countermeasures were employed by the aggressor.²⁵ Even if technologically feasible,

scientists further argued that human error in a complex system such as this is likely and would be catastrophic in terms of total and successful interception.²⁶

Fueling an Arms Race

Reminiscent of Secretary McNamara's arguments, SDI opponents legitimately feared that SDI would set the stage for another spiraling arms race. The Soviets viewed SDI as an offensive system in disguise. In other words, if the United States built up enough defenses to thwart off an attack from the Soviet Union, then it was reasoned that she could initiate a first-strike launch without fear of significant retaliation. In an effort to reinstate the balance, the Soviets would be forced to develop and deploy enough ICBMs to ensure penetration of the American defensive shield. Only then, the Soviets reasoned, would the United States be once again deterred from launching a first strike. As a result, the Americans would build more defenses and the Soviets would build more offenses in an endless and costly spiraling arms race.

Easily Defeated

Opponents argued that any defense "is only as good as its weakest link." By concentrating an attack at what the aggressor deems the weak spot in the defense, it would be difficult at best to wholly thwart off a mass attack.²⁷ Furthermore, as American scientists warned, simply employing decoys on ICBMs could easily defeat ABM weapons. Finally, a one hundred percent guarantee of a foolproof shield was never written or voiced. The fact of the matter is, some ICBMs in a mass attack will reach their intended targets.

These obstacles, some of them showstoppers, fell to the favor of the opponents not by grand policy decision, but more by default. “Star Wars” was tabled and would not see a revival until the late 1990s during the Clinton administration.

Notes

¹ The Arms Control Association, comp., *Star Wars Quotes*, 1.

² National Security Decision Directive 85, 25 March 1983.

³ “Harnessing the Power of Technology: the Road to Ballistic Missile Defense from 1983-2007,” *Missile Defense Agency*, September 2000, 19, on-line, internet, 18 March 2002, available from <http://www.acq.osd.mil/bmdo/bmdolink/pdf/power.pdf>.

⁴ John T. Bosma and Richard C. Whelan, *Guide to the Strategic Defense Initiative* (Arlington, Va.: Pasha Publications, 1985), A-1.

⁵ Steven E. Miller and Stephen Van Evera, ed., *The Star Wars Controversy* (Princeton, N.J.: Princeton University Press, 1986), xi.

⁶ Edward Reiss, *The Strategic Defense Initiative* (New York, N.Y.: Cambridge University Press, 1992), 42.

⁷ Gordon R. Mitchell, *Strategic Deception* (East Lansing, Mich.: Michigan State University Press, 2000), 55.

⁸ Reiss, 53.

⁹ Ibid, 40.

¹⁰ Ibid, 41.

¹¹ Donald R. Baucom, *The Origins of SDI, 1944-1983* (Lawrence, Kans.: University Press of Kansas, 1992), 115.

¹² Reiss, 68.

¹³ Ibid, 58.

¹⁴ Ibid, 46.

¹⁵ Ibid, 111.

¹⁶ Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, 26 May 1972.

¹⁷ Ibid.

¹⁸ Reiss, 90-91.

¹⁹ Ibid, 89.

²⁰ Ibid, 92-94.

²¹ Ibid, 95-96.

²² Ibid, 115.

²³ Ibid, 120.

²⁴ Ibid, 103.

²⁵ Ibid, 87-89.

²⁶ Ibid, 57.

²⁷ Ibid, 57.

Chapter 4

A Change in Scenery

As the new century approached, the international scene took on a markedly different picture. Over a decade had passed since the Soviet Union collapsed. The Cold War was over. The United States emerged as a hegemonic superpower in a class of her own. Third-world countries are proliferating and indigenously building missile technology. A whole new generation of proponents and opponents for and against an NMD system surfaced.

Scene Changers

Numerous catalysts emerged in the 1990s to drive policy and science toward a new call for a missile shield. A familiar story unfolded, only with new characters in a different setting. On May 13, 1993, Secretary of Defense Les Aspin signaled an end to the SDI era by changing the lead organization's name to the Ballistic Missile Defense Organization (BMDO).¹ With this change came a shift of primary focus from developing a Cold War-era NMD against a massive Soviet missile attack to fielding a theater missile defense system. At the same time, BMDO sought to maintain an ability to expeditiously transition to deployment of an NMD system, while aggressively advancing technology. Once again, political and technological dynamics fueled the debate.

Emergence of THAAD

The spark that re-ignited the NMD debate occurred in 1993 when Congress amended its 1991 Missile Defense Act, calling for the development of a theater missile defense more capable than the Patriot system that defended against Iraqi Scud missiles during Operation Desert Storm. In addition to a Patriot upgrade, however, the new legislation paved the way for research and development of what would become the Theater High Altitude Area Defense, or THAAD, system. While THAAD was professed to be a defense specifically against short-range ballistic missiles (SRBM) like the Iraqi Scud, numerous lead scientists objected outright, contending that development of THAAD would constitute a violation of the ABM treaty.²

The Clinton administration defended THAAD by avowing “the system could not stop a long-range rocket attack from Russia or China, and therefore would not have strategic capability.”³ Scientists countered, however, by pointing out that system parameters were indeed strategic and capable of intercepting ICBMs, which roused public opposition regarding its potential violation of the ABM treaty. Nevertheless, this argument would lay the groundwork for the NMD debate toward the last half of the decade with particular regard to treaty compliance.⁴

Russian Protest

The Russians concurred with the scientific community, resurfacing concerns that an American missile defense would cancel out the deterrent worth of their ICBM force and regenerate a spiraling arms race they could ill afford. In fact, the Russians viewed THAAD as SDI in the remaking, and immediately recognized the threat this system posed to world stability.⁵

Technological Turbulence

Meanwhile, on a technological front, THAAD was not doing well. By mid-1999, THAAD had failed to intercept a single missile six times straight.⁶ As only one element of the layered defense prescribed by SDI, it appeared as if United States technological advancements had not progressed enough to realistically pursue a limited NMD capability, much less a robust system. However, technologically capable or not, politics intervened in the immediate aftermath of the 1996 Presidential election.

Political Maneuvering

Even though President Clinton opposed an NMD system during his re-election campaign, he chose to pursue a middle road between NMD hard-liners and devout opponents. By approving major spending increases in support of theater missile defense systems, including THAAD, Patriot, and the Navy's "Upper Tier" system, the President avoided taking sides in the NMD debate.⁷ Then, to further shelve any pressure to make a decisive declaration of United States policy on the issue, President Clinton made a move reminiscent of Secretary of Defense McNamara's compromise in 1967. Clinton announced the "3 plus 3" plan, which established a three-year evaluation period to determine whether an NMD system was feasible, affordable, and politically acceptable, followed by a three-year deployment period if results were positive.⁸

Missile Defense Act of 1999

Then, in the summer of 1998, public and political attitudes changed considerably. Former Secretary of Defense Donald Rumsfeld led a bipartisan committee that released a report on the growing threat of ballistic missiles. Specifically, the report conveyed third-world countries like Iran and North Korea possessed the potential to build and deploy an

ICBM force by 2003. Shortly thereafter, a statement by current Secretary of Defense William Cohen pushed the administration forward by committing an additional \$6.6B toward research and development efforts for an NMD system. He further attested that a decision whether to deploy the system was forthcoming as early as June of 2000, two years earlier than the “3 plus 3” plan prescribed.⁹

The Senate responded to the administration’s change in venue by passing the Missile Defense Act of 1999 by near-unanimous decision. The act stipulates the deployment of an NMD “as soon as technologically possible.”¹⁰ In that spirit, THAAD gained new momentum as the intended “hit to kill” leg of the new NMD system. In light of these revelations, it became clear that a re-evaluation of possible abrogation from the ABM treaty was in order.¹¹ Throughout this decade of dramatic policy and opinion shifting, each side of the NMD debate again held plausible positions. These points, some of which carried over from the previous decade, are generally and briefly described below.

The Proponents

Proponents argued that proliferation of missile technology by rogue states introduced a new threat to the United States mainland. NMD advocates further avowed the ballistic missile would be the medium of choice for the delivery of nuclear, biological, and chemical (NBC) weapons of mass destruction (WMD) by these rogue states. Related, ICBM-capable states are on the rise. It is no longer a steady and relatively predictable race between two superpowers. It is the contention of NMD promoters that the United States can no longer depend on deterrence as her safety net. Mirror imaging third-world countries, as the United States did with the Soviet Union, would be a cataclysmic mistake.

Finally, among the proponents' primary support for employment of a NMD system is the belief that allied relations could be strengthened through Shared Early Warning and Shared Missile Defense, even with Russia. Opponents counter with plausible arguments.

The Opponents

Chief among the reasons against development of a missile shield is that the expense outweighs the benefit. Current cost estimates for a system capable of protecting the mainland United States from small missile attack approach \$60B.¹² Furthermore, opponents disagree that ICBMs will be the weapon of choice for NBC delivery. Rather, if a rogue state intends to unleash WMD on or over United States soil, she will find a covert way, perhaps through terrorists.

Opponents fear the worst in that relations with Russia, China and other emerging major international players will be significantly and irreproachably damaged if the United States deploys a missile shield. They maintain that continued adherence to existing treaties, to include the ABM treaty, is paramount to lasting peace and avoidance of a nuclear arms race with emerging nuclear powers. Similarly, placing laser intercept weapons in space, a by-product of a robust, layered NMD system, would only result in an arms race of a different kind.

Notes

¹ Donald R. Baucom, "Ballistic Missile Defense: A Brief History," *MDA Link*, May 2000, n.p., on-line, Internet, 18 March 2002, available from <http://www.acq.osd.mil/bmdo/bmdolink/html/origins.html>.

² Gordon R. Mitchell, *Strategic Deception* (East Lansing, Mich.: Michigan State University Press, 2000), 181.

³ *Ibid*, 182.

⁴ *Ibid*, 182-185.

⁵ *Ibid*, 205-206.

Notes

⁶ Ibid, 209.

⁷ Ibid, 253.

⁸ Ibid.

⁹ Ibid, 253-254.

¹⁰ Ibid, 251-254.

¹¹ Ibid, 209.

¹² Ibid, 255.

Chapter 5

A Different World

All nations should know that America will do what is necessary to ensure our nation's security. I will not wait on events while dangers gather. I will not stand by as peril draws closer and closer. The United States of America will not permit the world's most dangerous regimes to threaten us with the world's most destructive weapons.

—President George W. Bush
State of the Union Address, 2002

The preceding discussion represents a history of the ABM debate and describes the primary arguments espoused by NMD proponents and opponents from post-World War II through September of 2001. However, in light of the terrorist attacks of September 11, few Americans would argue that the world is a different place for them.

In early January of 2002, Secretary of Defense Donald Rumsfeld elevated BMDO to agency level, renaming the organization the Missile Defense Agency (MDA). This new designation highlights the new administration's view of missile defense as a national priority. Markedly different from the BMDO charter, the MDA's charge is to defend American and allied citizens and forces at home and abroad through the employment of a layered missile defense against all types of ballistic missiles.¹ After nearly nine years of taking a back seat to theater missile defense research and development, NMD is once again at the forefront of American policymaking and public debate.

This chapter gets to the heart of this discussion and seeks to answer whether the September 11 terrorist attacks on the United States bear any effect on the NMD debate. Following a brief description of the current proposed missile defense architecture to be developed over the next ten years, this chapter analyzes the present day debate through a point-counterpoint methodology.

State-of-the-Art Architecture

The proposed architecture, recently termed a Ballistic Missile Defense (BMD) System to exemplify the integration of both theater and strategic ballistic missile defense, comprises a multi-layered defense designed to detect, track, and intercept missiles and warheads in the boost, mid-course, and terminal phases of flight. The weapons of choice particular to each phase depend on various target and interceptor characteristics exhibited along the target's trajectory. The following paragraphs describe these weapons by phase; however, common among them all are the requirements for continued development and enhancement of space-, air-, and surface-based multi-spectral early warning systems, as well as improvements in battle management command and control.²

Boost Phase Intercept

The boost phase, or first few minutes of a missile's flight, represents the best opportunity for intercept for a number of reasons. In this phase, a missile displays an easily detectable plume, represents the largest target along the missile's trajectory, and does not typically deploy countermeasures at this point. At the same time, interception disadvantages exist in terms of quick reaction and decision-making requirements, reliance on continual monitoring, and natural impediments such as weather. With this in

mind, program managers envision three weapons options for this phase. The Airborne Laser (ABL) offers the most promise in the ability of the 747-400F aircraft to observe high threat areas and, upon detection of a threatening launch, to accurately direct a high-energy chemical oxygen iodine laser on the target and destroy it. Similarly, a constellation of Space Based Lasers (SBL) could theoretically destroy a missile in its boost phase by directing intense energy on the target. Finally, a kinetic energy kill vehicle delivered from a sea or space-based platform poses the most challenge, largely due out of the extremely narrow decision window to engage such a fleeting target of opportunity.³

Mid-Course Phase Intercept

The mid-course interception concept capitalizes on hit-to-kill technology to destroy ballistic missiles throughout a missile's midcourse trajectory, typically in the exo-atmosphere. At this point, a strategic missile soars unassisted by its boosters and no longer provides an easily tracked infrared signature. From the sea, the AEGIS Weapon System is to deploy the Standard Missile-3 toward intercept as part of the Sea-Based Midcourse System (SMS). From the ground, the MDA envisions development of a ground-based interceptor (GBI) to launch an exoatmospheric kill vehicle (EKV) from mid-ocean landmasses as part of the Ground-Based Midcourse System (GMS). Both the SMS and GMS are to work in concert to employ kinetic energy weapons for a robust midcourse defense.⁴

Terminal Phase Intercept

The terminal phase of a missile or warhead trajectory accounts for approximately the final one minute of the missile's flight as it descends back into the atmosphere at mach

speeds toward the target. THAAD, described earlier, is the primary interception system envisioned for this phase. THAAD's objective is to protect population centers, dispersed assets, and deployed forces. Additionally, the Patriot Advanced Capability-3 (PAC-3) represents the most mature technology, and the Medium Extended Air Defense System (MEADS) fuses international cooperative efforts to protect deployed forces and assets against short and medium range ballistic missiles in the terminal phase of flight.⁵

The Current Debate

With this general underpinning of the current missile defense architecture, an examination of the current debate as it rages on the heels of September 11 is now in order. Terrorism, treaties, and third-world country threats thrust to the forefront of this age-old deliberation.

Third-World Country Threat

Generally, Americans associate terrorism with third-world countries. Therefore, proponents argue that the terrorist attacks highlight the potential harm third-world countries may inflict on the United States and Americans abroad. In President Bush's January 29, 2002 State of the Union address, he too highlighted Iran, Iraq, and North Korea as primary security concerns to the United States. Because these and other countries are proliferating ICBM capabilities, proponents declare a missile shield is necessary today more than ever.

Opponents counter that third-world countries are no different from Russia or China when it comes to the will to launch ICBMs toward the United States. Because of the retaliatory capabilities of the United States to obliterate a small country via ICBM,

bomber, or Submarine-Launched Ballistic Missile (SLBM), NMD opponents argue that third-world countries will not initiate mayhem of that degree.

Cost vs. Benefit

Opponents fail to see the worth of an NMD system when considering the costs of a fully operational shield. They believe \$60B could be spent more wisely, especially towards homeland defense programs that focus on covert terrorist actions within United States territory, airspace, and coastal regions. On the contrary, those in favor of NMD have difficulty putting a price on security from annihilation. One ICBM, they argue, is all that it takes to eliminate a major city. Are we really willing to take that chance?

Terrorist Deterrent?

Those that challenge NMD believe a missile shield will not deter terrorists from attacking the United States. Terrorists have demonstrated the will and capability to carry out egregious acts of violence in ways unthinkable to the average American. In fact, terrorists will welcome the waste of money the United States will pour into such a defense, because that is money not spent defending against them.

Those in favor of a missile shield outwardly counter this belief. They reason that, in the absence of a defensive shield, sole reliance on possession of a mighty nuclear arsenal and the will to retaliate in kind does nothing to deter a terrorist from launching a WMD-laden ICBM. A terrorist without a state has nothing to lose in the event of nuclear retaliation by the United States. Terrorists are also acutely aware the United States will not use ICBMs as a first-strike weapon. With a shield in place, however, proponents contend that terrorists will realize the futility in using ballistic missiles and abandon the idea.

More Defense = Less Offense?

With the Cold War concluded over a decade now and a war over terrorism raging in Afghanistan, supporters of a missile shield deployment argue that the role of the United States ICBM has changed. No longer are we engaged in a standoff with a lone superpower opponent, relying on a policy of MAD to deter man-made Armageddon. Therefore, some NMD proponents argue that in order to significantly reduce, or perhaps eliminate, the nation's nuclear arsenal, a robust NMD must first exist to fully protect the United States from nuclear aggression. Though the costs of deactivating America's ICBM weapon system would be grand and extend over several years, devout NMD proponents contend that it is far wiser to spend money and resources on a foolproof defense than on an ever-aging offensive system. Such a move, proponents argue, would further assure other nuclear powers, like Russia and China, that the missile shield is not an offensive weapon in disguise, while encouraging further reductions in nuclear weapons among these countries as well.

Opponents of NMD generally agree that America's nuclear forces, and all strategic nuclear weapons of the world for that matter, should be drawn down, if not eliminated. However, they do not see building a missile shield as a means to deter against such aggression. In fact, they are confident that deployment of an NMD system will only aggravate the nuclear balance and encourage an increase in nuclear arsenals of rival countries. The current administration has already indicated its intentions to greatly reduce the nuclear arsenal of the United States by two-thirds, based on an improved and more congenial relationship with Russia.⁶ NMD antagonists aver that persistence in the missile defense arena will only taint diplomatic progress made thus far.

The ABM Treaty

Proponents contend that the ABM treaty is no longer valid, as it was an agreement between the United States and Soviet Union. The Soviet Union, they assert, no longer exists. The democratic Russia of today is nothing like the former Soviet Union of yesterday, motivated by an agenda of communist expansion. The ABM Treaty “was signed with an eye to an environment that no longer exists today.”⁷ Furthermore, proponents argue that the ABM treaty excludes other nuclear powers like China and India and fails to regulate their growth.

On the contrary, opponents of an NMD system demand that the treaty remain in force. From a legal standpoint, many argue that Russia is the descendant of the Soviet Union and, therefore, the heir of all international treaties, including the ABM Treaty. They submit that by bowing out of the treaty, the United States invites a new nuclear arms race with Russia and possibly China, a competition the ABM Treaty was designed to avert.

Missile Hijacking?

Prior to September 11, 2001, most Americans would think an attack of such magnitude and forethought inconceivable. Is it also inconceivable that a terrorist organization may mastermind the takeover of a third-world country’s nuclear-tipped ICBM and launch it toward the United States? What is the United States response in such a scenario? As it stands, the world is relying on the nuclear surety programs of these underdeveloped states to prevent such an unfathomable tragedy. Proponents of an NMD system have a valid point in that a missile shield could easily defend against a single ICBM. Without such a defense, there is no deterrence against a non-state actor.

Opponents counter that such an act is indeed unfathomable and certainly not worth the expense of creating a nation-wide defense to defend against one unbelievable scenario. They further attest that if terrorists want to unleash WMD on the United States, there are much easier methods to pursue. Examples include delivery via a suitcase or vehicle bomb constructed by terrorists within the targeted nation's borders.

Notes

¹ "DoD Establishes Missile Defense Agency," *United States Department of Defense News Release*, No. 008-02 (4 January 2002).

² *Ballistic Missile Defense Approach*, Missile Defense Agency Fact Sheet (January 2002).

³ *Boost Phase Missile Defense*, Ballistic Missile Defense Organization Fact Sheet (January 2002).

⁴ *Sea-Based Midcourse*, Missile Defense Agency Fact Sheet (January 2002).

⁵ *Terminal Phase Missile Defense*, Missile Defense Agency Fact Sheet (January 2002).

⁶ "Statement on Nuclear Posture Review," *United States Department of Defense News Release*, No. 113-02 (9 March 2002).

⁷ Henry Kissinger, Testimony before Congress, 26 May 1999.

Chapter 6

Final Thoughts

The preceding chapters complete a journey of NMD deliberation spanning nearly sixty years. The question remains, however. Do the September 11 terrorist attacks on the United States bear any effect on the NMD debate?

There is no conclusive evidence that some NMD proponents and opponents swapped sides on this issue. However, that the attacks of September 11 did have an effect on the debate is quite clear. Indeed, the element of terrorism has added credibility to elements of both views. Primarily, third-world country missile proliferation, nuclear weapons, and terrorism are a bad mix. With no knowledge of foreign nuclear surety programs, the issue boils down to a matter of trust, however nobody can really trust anybody when it comes to WMD. The stakes are just too high. Therefore, based on these compelling viewpoints and the added element of extreme terrorism, this paper concludes with the following recommendation.

Recommendation

The findings of this analysis support the need to develop a tailored missile defense against state and non-state sponsored terrorism. Dr. Henry Kissinger elegantly appealed for an NMD system during his testimony before Congress on May 26, 1999. He stated “I believe it is strategically and morally necessary to build a missile defense: strategically,

because of the proliferation of weapons of mass destruction and the missile technology to deliver them; morally because the doctrine of Mutual Assured Destruction which I have opposed in my writings for at least thirty years, is bankrupt.”¹ The author is compelled to agree with this statement. Clearly, the events of September 11 highlight the boundless capacity of terrorism, amplified by the growing missile and WMD proliferation by third world countries. The attacks further exemplify a new enemy, one not deterred by a policy of MAD.

The concept of an impenetrable shield, capable of defending the United States against a massive strategic attack resembling the threat posed by the former Soviet Union, is unrealistic. However, as this study suggests, a massive barrage of hundreds of missiles and warheads no longer constitutes the core threat. Rather, the focus must be on defeating a more realistic threat, a single missile or small salvo of terror weapons carrying WMD toward United States and allied citizens and forces worldwide. The United States gave the requisite six-month notice in December 2001 to formally abrogate from the ABM Treaty. In light of this monumental decision and the seemingly boundless menace of terrorism, shielding the homeland and allies against a few ICBMs is both legal and viable in today’s context. As this analysis reveals, ignoring the modern threat and not building a defense against a limited missile attack is tantamount to suicide.

Notes

¹ Henry Kissinger, Testimony before Congress, 26 May 1999.

Bibliography

- The Arms Control Association, comp. *Star Wars Quotes*. 1986.
- Ballistic Missile Defense Approach*. Missile Defense Agency Fact Sheet. Washington, D.C.: Department of Defense, January 2002.
- Baucom, Donald R. "Ballistic Missile Defense: A Brief History." *MDA Link*, May 2000, n.p. On-line. Internet, 18 March 2002. Available from <http://www.acq.osd.mil/bmdo/bmdolink/html/origins.html>.
- Baucom, Donald R. *The Origins of SDI, 1944-1983*. New York, N.Y.: University Press, 1992.
- Boost Phase Missile Defense*. Ballistic Missile Defense Organization Fact Sheet. Washington, D.C.: Department of Defense, January 2002.
- Bosma, John T. and Richard C. Whelan. *Guide to the Strategic Defense Initiative*. Arlington, Va.: Pasha Publications, 1985.
- "DoD Establishes Missile Defense Agency." *United States Department of Defense News Release*, No. 008-02 (4 January 2002).
- Kissenger, Henry. Testimony before Congress. Washington, D.C., 26 May 1999.
- Miller, Steven E. and Stephen Van Evera, eds. *The Star Wars Controversy*. Princeton, N.J.: Princeton University Press, 1986.
- Mitchell, Gordon R. *Strategic Deception*. East Lansing, Mich.: Michigan State University Press, 2000.
- Protocol to the Treaty between the United States of America and the Union of Social Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, 3 July 1974.
- Sea-Based Midcourse*. Missile Defense Agency Fact Sheet. Washington, D.C.: Department of Defense, January 2002.
- "Statement on Nuclear Posture Review." *United States Department of Defense News Release*, No. 113-02 (9 March 2002).
- Terminal Phase Missile Defense*. Missile Defense Agency Fact Sheet. Washington, D.C.: Department of Defense, January 2002.
- Toland, John. *Infamy*. New York, N.Y.: Berkley Publishing Corporation, 1982.
- Treaty between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, 26 May 1972.
- Reiss, Edward. *The Strategic Defense Initiative*. New York, N.Y.: Cambridge University Press, 1992.