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National Missile Defense: Issues for Congress

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Steven A. Hildreth and Amy F. Woolf
Foreign Affairs, Defense, and Trade Division

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National Missile Defense: Issues for Congress

SUMMARY

Many in Congress and outside the government have shown a growing interest in deploying a ballistic missile defense to protect the United States from attack. The 1972 ABM Treaty prohibits nationwide defense but permits the United States to deploy up to 100 interceptors for long-range ballistic missiles at a single site. Many supporters of National Missile Defense (NMD) argue that the United States must amend or abrogate this treaty so that it can pursue a more robust defense.

The United States has pursued the development and deployment of defenses against long-range ballistic missiles since the early 1950s. It deployed a treaty-compliant site in North Dakota in the mid-1970s, but shut it down after only a few months of operation. President Reagan launched a research and development effort into more extensive defenses in the early 1980s, but these plans were scaled back several times during the Reagan and Bush Administrations.

The Administration initially focused NMD efforts on technology development, but, in 1996, outlined a strategy to pursue the development and deployment of an NMD system by 2003 if the threat warranted and the technology was ready. In January 1999, the Administration announced that it had adjusted this program to permit deployment in 2005, and would decide in Summer 2000 whether to proceed with deployment of up to 20 at a single site. This was apparently modified in February 2000 to allow for 100 interceptors.

Many in Congress have disagreed with the Administration's approach arguing that the threat justifies the more rapid deployment of an NMD system. Other analysts have argued that the United States should modify a Navy theater

missile defense system so that it would have the capability to defend against long-range ballistic missiles. Still others argue that the United States should focus on arms control and nonproliferation strategies, rather than missile defenses, to counter the threats from missile proliferation.

The Clinton Administration will review several factors whether to proceed with the deployment of an NMD system. These include an assessment of the threat to the United States from long-range ballistic missiles, an assessment of the maturity of the technology and the feasibility of deploying an effective system, consideration of the implications for the ABM Treaty and the possibility of gaining Russian agreement on amendments, the potential costs of the prospective system, and the environmental implications of deployment.

Many in Congress have questioned the Administration's commitment to NMD funding and deployment. Some have argued that additional funds could speed the development and deployment of the program. And, in an effort to press the Administration to deploy an NMD, both the House and the Senate have passed legislation on NMD deployment.

MOST RECENT DEVELOPMENTS

*On September 1, 2000, President Clinton announced that he had decided **not** to authorize deployment of a National Missile Defense (NMD) system at this time. He stated that he could not conclude “that we have enough confidence in the technology, and the operational effectiveness of the entire NMD system, to move forward to deployment.” Consequently, the planned deployment date of 2005 will slip, but research and development will continue and the United States will continue to discuss this system and possible changes to the ABM Treaty, with Russia. The President further stated that the final decision on deployment would be left to the next Administration. This announcement ran counter to expectations that the President would accept Secretary of Defense Cohen’s arguments in favor of a “limited green light,” where the United States would begin the early phases of construction at the radar facility on Shemya Island in Alaska. Construction at that site would have to begin in early 2001 to be completed by 2005. But, the President reportedly concluded that it would not be wise to begin construction there, and raise questions about continued U.S. compliance with the ABM Treaty, if the other technologies needed for the system would not be ready by 2005 anyway.*

In late August, 2000, Philip Coyle, the Director of Operational Testing at the Department of Defense, stated that the United States would not be able to deploy an NMD system by the target date of 2005 because testing of the system’s components had fallen behind schedule. He contended that a more aggressive testing program would be needed to achieve a deployment date of 2005.

BACKGROUND AND ANALYSIS

Introduction

Many in Congress and outside government have shown a growing interest in recent years in deploying a ballistic missile defense (BMD) system to protect the United States from attack. Several events in the last decade contributed to these evolving views. The collapse of the Soviet Union in 1991 heightened concerns about the possibility of an accidental or unauthorized launch of ballistic missiles from the remnants of that nation. The Persian Gulf War in 1991, with Iraq’s use of Scud missiles, alerted many to the growing threat posed by ballistic missiles. The proliferation of ballistic missile technologies, including sales from nations such as China, Russia, and North Korea to nations such as Iran, Syria, and Pakistan became more worrisome. Finally, many recognized that some U.S. adversaries, such as North Korea, were developing longer-range missiles that might reach targets in the United States.

Two events in the summer of 1998 served as a turning point in the debate over National Missile Defense (NMD). First, in July, a congressionally-mandated panel chaired by former Secretary of Defense Donald Rumsfeld concluded that nations seeking to develop long-range ballistic missiles might be able to achieve that objective within 5 years of deciding to do so, and that the United States might have little warning before the testing and deployment of such missiles. This finding contrasted with official intelligence community assessments, first articulated in 1995, which stated that the continental United States was not likely to face a new ballistic missile threat for 10-15 years. (The basic difference between the two reports

was that the U.S. intelligence community was tasked to examine indigenous capability to develop long-range ballistic missiles, and concluded that large-scale technology transfers to these nations were not likely, while the Rumsfeld panel concluded that many of these nations were transferring technologies among themselves and could, therefore, develop long-range ballistic missiles in relatively shorter periods of time.) Then, at the end of August, North Korea flight tested a 3-stage ballistic missile. Although the third stage of this missile apparently failed in flight, and this missile would not have had the range to reach the continental United States, North Korea demonstrated that it had developed the technology for “staged” missiles, a milestone considered critical to the development of longer-range ballistic missiles. Many in the United States then concluded that North Korea could have a missile with the range to reach U.S. territory, such as parts of Alaska, in a year or two, and possibly, the rest of the United States, with a much smaller warhead, shortly thereafter.

Both the Clinton Administration and Congress reacted to these developments. In January 1999, the Administration announced that, for the first time, it had allocated funding in its Future Years Defense Plan (FYDP) for the deployment of an NMD system, even though it would not decide whether to deploy such a system until Summer 2000. And, in March 1999, Congress passed by a wide margin legislation declaring it the policy of the United States to deploy an NMD.

This issue brief provides an overview of the current debate on NMD. It begins with a brief summary of the provisions of the 1972 ABM Treaty and a short history of U.S. NMD efforts to provide a context for the current debate. It then reviews approaches to NMD development and deployment, describing the Administration’s current strategy and major alternative views on how the United States should address missile threats to its territory. The Issue Brief then identifies and describes the factors that the Administration will consider when making its decision about NMD deployment in Summer 2000, and tracks progress and changes in each of these factors. Finally, the Issue Brief summarizes current debate in Congress about NMD, focusing on budget issues and legislation.

The 1972 Anti-Ballistic Missile (ABM) Treaty

The 1972 U.S.-Soviet Anti-Ballistic Missile (ABM) Treaty prohibits the deployment of ABM systems for the defense of the nations’ entire territory. It permits each side to deploy limited ABM systems at two locations, one centered on the nation’s capital and one at a location containing ICBM silo launchers. A 1974 Protocol further limited each nation to one ABM site, located either at the nation’s capital *or* around an ICBM deployment area. Each ABM site can contain no more than 100 ABM launchers and 100 ABM interceptor missiles. The Treaty also specifies that, in the future, any radars that provide early warning of strategic ballistic missile attack must be located on the periphery of the national territory and oriented outward. The Treaty bans the development, testing, and deployment of sea-based, air-based, space-based, or mobile land-based ABM systems and ABM system components (these include interceptor missiles, launchers, and radars or other sensors that can substitute for radars).

History of NMD in the United States

The Sentinel and Safeguard Programs

The United States has pursued research and development into anti-ballistic missile (ABM) systems since the early 1950s. In the mid-1960s it developed the Sentinel system, which would have used ground-based, nuclear-armed interceptor missiles and would have been deployed around a number of major urban areas to protect against Soviet attack. Many analysts recognized that such protection would be limited, in part because the Soviet Union could probably saturate the system with offensive warheads and just a few warheads could achieve massive damage against a “soft” target like a city. In response, supporters argued that the system could provide a “thin” defense of U.S. cities against an attack by an anticipated Chinese intercontinental ballistic missile (ICBM) force.

In 1969, the Nixon Administration renamed the system “Safeguard,” and changed its focus to deployment around offensive missile fields, rather than cities, to ensure that these missiles could survive a first strike and retaliate against the Soviet Union. Many in Congress objected to the program, citing its costs, technical uncertainties, and the risk of accelerating the arms race. Congress almost stopped the program in 1969, when the Senate voted 50-50 to approve an amendment halting construction. Safeguard continued, however, when Vice President Agnew broke the tie with a vote for the program. Nevertheless, sentiment against ABM deployments and in favor of negotiated limits on ABM systems, was growing.

Negotiations with the Soviet Union on the ABM Treaty began in November 1969. Early in the negotiations the United States proposed that the treaty limit Russia to one site around Moscow (which it was already building) and permit the United States to deploy four sites around ICBM fields, which was the current U.S. program (construction had already begun on a site near Grand Forks, ND). The Soviets rejected this proposal, insisting that any agreement include equal limits on each nation. They had the same reaction when the United States proposed that the treaty permit either nation to deploy one site at its capital or two sites at ICBM fields. Eventually, the Nixon Administration agreed to accept parity in ABM deployments; each nation could deploy two sites, one around its capital and one around an ICBM field. This permitted the continued construction of each nation’s existing ABM site. When it became clear that neither nation would complete a second site, the two sides agreed, in a 1974 Protocol, that each would have only one ABM site under the Treaty. The United States completed its nuclear interceptor ABM site near Grand Forks. It operated for 9 months in 1974 and 1975, then was shut down because it proved to be not cost-effective. The facilities at that location, however, continue to count under the ABM Treaty because they have not been completely dismantled according to a post-Treaty agreement reached with the Soviet Union. Russia continues to operate its ABM site around Moscow. U.S. research and development into ABM systems, especially for ICBM protection, continued, albeit at lower budget levels through the late 1970s, before rising again during the Carter Administration.

The Strategic Defense Initiative (SDI)

The Reagan Administration continued to increase funding for missile defenses of ICBMs. In March 1983, President Reagan announced an expansive effort to develop non-nuclear ballistic missile defenses that would protect the United States against a full-scale attack from

the Soviet Union. Although the Strategic Defense Initiative (SDI) remained a research and development effort, with little testing and no immediate deployments, President Reagan and the program's supporters envisioned a large-scale defensive system with thousands of land-, sea-, air-, and space-based sensors and interceptors. This global defensive "shield" would employ both non-nuclear interceptor missiles and more exotic laser or x-ray devices designed to destroy incoming missiles. With these technologies, the United States would replace deterrence with defense in its effort to protect itself from Soviet attack. However, as cost estimates and technical challenges increased, the Reagan Administration scaled back its objectives for SDI. It announced that it would begin with a "Phase I" deployment of land-based and space-based sensors and interceptors. This system would not provide complete protection from Soviet attack, but would, instead, disrupt the attack enough to call into question the attack's effectiveness. Phase I of SDI would, therefore, according to their arguments, enhance deterrence, while the United States continued to seek a way to replace deterrence with defense. Although Congress largely supported BMD research and development, it generally opposed plans for significant BMD deployments.

The Reagan Administration and the program's supporters recognized that many of the technologies pursued under SDI would not be allowed by the ABM Treaty when they entered the testing or deployment phases. Therefore, the Reagan Administration outlined a new interpretation of the ABM Treaty that it hoped would allow for the testing of space-based and exotic missile defense technologies. Many in Congress objected to this re-interpretation of the ABM Treaty, with Senator Sam Nunn mounting a particularly comprehensive defense of the traditional interpretation of the Treaty. Throughout this period, Congress tendered strong support for the ABM Treaty. The Reagan Administration also opened new negotiations with the Russians, known as the Defense and Space talks, in an effort to reach agreement on modifications to or a replacement for the ABM Treaty.

Global Protection Against Limited Strikes (GPALS)

The Bush Administration responded to the costs and technical challenges of Phase I and the changing international political environment with a further contraction of the goals for SDI. Instead of seeking to protect the United States against a large-scale attack, the United States would seek to deploy a defensive system that could provide Global Protection Against Limited Strikes (GPALS). This recognized that the demise of the Soviet Union had reduced the likelihood of a large-scale attack, but may have increased the likelihood of a small accidental or unauthorized attack. In addition, this type of ballistic missile defense would have sought to protect the United States, its forces, and allies against an attack by other nations who had acquired relatively small numbers of ballistic missiles.

The Bush Administration envisioned a GPALS system that would have included up to 1,000 land-based interceptors and perhaps another 1,000 space-based interceptors, along with space-based sensors. The Administration recognized that this system would have exceeded the limits in the ABM Treaty. It, therefore, held negotiations with the Russian government in 1992 in an effort to identify a more cooperative and flexible regime to replace the ABM Treaty. The Clinton Administration suspended these negotiations in 1993, when it also scaled back U.S. objectives for a national missile defense program. Meanwhile, some in Congress, notably Senator Nunn, had argued since the late 1980s for the deployment of a more limited NMD system, that would comply with the ABM Treaty, to protect against limited or accidental attacks.

National Missile Defense (NMD) Technology Development Program

In FY1994, the Clinton Administration restructured the BMD programs to reflect the results of the 1993 Bottom Up Review, a DOD-wide review of U.S. military plans and programs. At the time, it decided to emphasize TMD development and deployment efforts, and to focus NMD on technology development. Secretary of Defense Les Aspin noted that these program changes reflected an assessment that the regional ballistic missile threat already existed, while a ballistic missile threat to the United States *per se* might emerge only in the future. This raised questions about the need for an NMD system in the near- to mid-term, particularly as compared with the need for robust TMD programs. DOD also decided that these programs would be conducted in compliance with the ABM Treaty. These changes allowed DOD to reduce the budget for BMD by \$21 billion, from \$39 billion planned by the Bush Administration to \$18 billion, over the course of the 1993-1999 FYDP. Of this amount, \$3 billion was allocated to NMD. The Clinton Administration continued to designate the NMD portion of its BMD programs as technology development program until 1996, when it adopted the 3+3 strategy for NMD. This strategy, and the modifications announced in January 1999, are described in the next section.

Approaches to NMD

Current Clinton Administration Program

In 1996, the Clinton Administration adopted a new policy, the 3+3 strategy, to guide NMD development and potential deployment. Under this strategy, the United States would develop an NMD system that would be designed to defend the United States against attacks from small numbers of long-range ballistic missiles launched by hostile nations, or, perhaps, from an accidental or unauthorized launch of Russian or Chinese missiles. The 3+3 strategy envisioned continued development of NMD technologies during the first 3 years (1997-2000), followed by a deployment decision (in 2000) if the system were technologically feasible and warranted by prospective threats. If a decision to deploy an NMD system were made, the plan then was to deploy it within the second three year period (2000-2003). Development and deployment was to be conducted within the limits of the ABM Treaty.

This 3+3 strategy was modified in January 1999. At that time, the Administration added \$6.6 billion for NMD to the FY1999-2005 FYDP. (This was an additional amount over what had been planned for that period only the year before.) This amount included \$600 million that Congress added for missile defense in the FY1999 Omnibus Appropriations Act (P.L. 105-277), and brought total NMD funding for the FYDP to \$10.5 billion. The Administration emphasized that an NMD deployment decision still would not be made until Summer 2000, but that now there was money in the FYDP to protect and pursue the deployment option in the event a deployment decision was made. In addition, the Administration announced that it had restructured the NMD program for a possible deployment date of 2005, rather than 2003. Some referred to this as the 3+5 strategy. This change was made, according to the Pentagon, to reduce the amount of risk in the program and to maximize its success.

On September 1, 2000, President Clinton announced that he would not approve deployment of an NMD system at this time because he was not convinced that the technology would prove feasible. Two intercept tests had failed and development and testing of system

components had fallen behind schedule. As a result, the target deployment date of 2005 would slip by a year or two.

In February 2000, the President submitted his budget request to Congress asking for \$1.9 billion for NMD for FY 01. The request includes some \$175 million for military construction and procurement of long-lead items to support an NMD deployment decision later this summer. The new budget allows for deployment of 100 ground-based interceptors, rather than the 20 originally proposed. The budget request also includes an additional \$2.2 billion over the FYDP for NMD, bringing it to about \$10.4 billion.

Program Design and Architecture. The Clinton Administration granted a contract to Boeing North America to serve as the “lead system integrator” for the NMD program. Boeing serves as the prime contractor, and will integrate elements of the program developed by different companies into an NMD system. Boeing also will execute the test program that will lead to the integrated system tests in 2000 and 2001. (Boeing has contracted to provide 20 GBIs for deployment, as well as five spares. It must also build another 14 missiles for flight tests prior to deployment, and another 36 for follow-on test and evaluation flights.)

Until this year, BMDO described 3 notional architectures: C1 (Capability 1); C2; and C3. The C1 architecture might deploy up to 20 interceptors at one site to defend against a very limited threat, such as a small-scale accidental or unauthorized launch, or a small-scale deliberate attack. The President’s September 2000 decision against deployment would delay this initial system by a year or two. In the future, a C2 architecture might feature up to 100 interceptors to defend against a larger threat, while the C3 architecture envisions 100-200 interceptors deployed at 1 or more sites to defend against a much larger and more sophisticated threat. Currently, the FYDP provides funding for 100 interceptors and the support sensor and weapon infrastructure. This new architecture has been called C-1 Prime.

At the present time, the prospective NMD system architecture consists of: 1) the Ground-Based Interceptor, which includes a booster rocket, kill vehicle, and ground-based command and launch equipment; 2) a Ground Based Radar that will perform acquisition, tracking, discrimination, and kill-assessment functions; 3) the Battle Management, Command, Control, and Communications system that will be used to identify and assess attacks and authorize the launch of interceptor missiles; 4) and space-based sensors for early warning of attack (i.e., Defense Support Program/Space Based Infrared System and the Space and Missile Tracking System/Space Based Infrared System Low Earth Orbit). Other candidate sensors include Upgraded Early Warning Radars, which will provide enhanced capability for the United States to detect and track missile launches, as well as other radars.

Congressional Reaction to Administration Program

Many in Congress have disagreed with the Clinton Administration’s NMD strategy. Some have argued that the threat from uncertainties in Russia and missiles in rogue nations exists now. Some also argued that the United States may have too little warning to respond to emerging threats with the deployment of a missile defense system. And some have argued that the Clinton Administration has placed the ABM Treaty above U.S. national security, maintaining it at all costs in spite of the demise of the Soviet Union. And many are still particularly concerned about the Administration’s refusal to commit to deploy an NMD system immediately. Conversely, some, including Senator Biden, have argued that the new

NMD strategy represents a turning away from long-term U.S. arms control objectives and nonproliferation policy.

After the Administration altered its NMD program in January 1999, some Members praised the Administration for adding deployment funds to the budget. Senator Jon Kyl stated, "I'm delighted. I think reality finally caught up with them." But some continued to question the Administration's commitment to NMD and they expressed concerns about the delay in the deployment date. For example, Representative Curt Weldon said he remained skeptical because the program still lacked a firm commitment to deployment and Senator Robert Smith noted that he did not see a commitment to deployment that matched the rhetoric from the Administration. Nevertheless, in the report that accompanied the Senate Armed Services Committee's version of the FY2000 Defense Authorization Bill (S.1059), the committee praised the Administration for fully funding the development and deployment of an NMD system.

A few Members of Congress have argued previously that the Administration's approach to NMD would have provided too little protection against the range of threats faced by the United States. Some would like to see a program that includes space-based sensors and interceptors. Others believe a sea-based NMD can provide more robust coverage sooner and for less money than the Administration's program (this concept is discussed below). And some Members believe that the United States should continue to pursue the development of a missile defense that can protect the United States from a large-scale attack by Russia. They note that Russian missiles still threaten the United States, and changes in Russian leadership could restore the adversarial relationship between the two nations.

Despite the most recent failed test in July 2000, congressional sentiment appeared to support efforts to continue keeping the program on track and pushing forward with a summer 2000 deployment decision. However, a growing number of Members had argued that the President should delay the decision until the next Administration. When the President announced such a delay on September 1, 2000, many Members praised his move. Most Democrats and some Republicans appeared to agree that the technology had not yet proved to be feasible and that further testing should be completed before a final deployment decision. Some Republicans, however, viewed the President's announcement as further evidence that the Clinton Administration was not serious about missile defense and had done little to protect the American public. Senator Trent Lott referred to the decision as "another example of the Clinton-Gore Administration's legacy of missed opportunities. Representative Curt Weldon stated that the President's "misguided decision" would leave Americans "completely unprotected against the weapon of choice for rogue nations and terrorist groups – the missile."

Sea-Based NMD

Some NMD supporters, and increasingly senior Navy military leaders, have advocated an alternative sea-based NMD program. The Heritage Foundation, for instance, examined current and future ballistic missile threats in 1995 and 1996 and proposed a sea-based NMD to meet these threats. The Foundation's most recent (March 1999) report, *Defending America: A Plan to Meet the Urgent Missile Threat*, outlined a plan "to achieve the most cost effective, most affordable global anti-missile protection in the shortest time." The plan, supported by other conservatives as well, calls for deploying an NMD system based aboard

the U.S. Navy's Aegis ships. Currently, the United States has about 27 Aegis cruisers and about 26 Aegis destroyers (by about 2008, there will be 57 destroyers).

There was some movement in 1999 on this issue. In the report that accompanied the Senate Armed Services Committee's version of the FY2000 Defense Authorization Bill (S.1059), the Committee called on the Secretary of Defense to prepare a new report evaluating options for supplementing a land-based NMD architecture with sea-based assets. It mandated that the report address the engineering steps that would be needed to develop a sea-based NMD system and that it evaluate requirements, performance benefits, design trade-offs, operational impacts, and refined cost estimates for sea-based NMD assets. Meanwhile, the Navy has proceeded to examine more closely some of the many technical and cost hurdles.

Boost-Phase NMD

By mid-2000, a growing number of analysts and critics of the Administration's NMD program, from across the political spectrum, had begun to argue that the United States should pursue boost-phase, rather than mid-course ballistic missile defenses. A boost-phase defense would attack an enemy's missiles early in flight, before they had left the atmosphere and before they had time to deploy multiple warheads or decoys. The interceptors could be deployed at sea, on land, or in space, as long as they were close enough to intercept an enemy's missiles within the first few minutes of its launch. Some critics, such as Richard Garwin, argued that this type of defense would be the only way to protect the United States against missile attack because a land-based, mid-course NMD would not be able to distinguish between decoys and actual warheads. Others, including the Republican nominee, Governor George Bush, have argued that the United States should pursue boost-phase defenses as a part of a more robust system, because they would give the United States multiple opportunities to intercept attacking missiles.

Officials in Russia have also argued for the development of boost-phase defenses. In early June, President Putin proposed that the United States and Russia cooperate on the development of boost-phase defenses that could "put a cap" on rogue nations and their missiles. He also proposed that Russia share its technology for these missiles with nations in Europe. He stated that this type of defense would not violate the ABM Treaty because it could be directed against theater-range ballistic missiles. The Clinton Administration remains skeptical of the Russian proposal because it still lacks details. Furthermore, the Administration has argued that this would not replace the U.S. NMD program because it could not protect against long-range strategic ballistic missiles.

The Clinton Administration has not denied the potential for boost-phase defenses for NMD, but it has noted that the technologies for this type of system are not as advanced as the technologies for mid-course defenses, and that the United States would not be able to deploy such defenses until years after the current 2005 goal for NMD deployment. Furthermore, some critics have argued that, because the defenses would have to respond instantaneously to the launch of an enemy missile, the United States would have to trust computers, rather than human beings, to interpret events and initiate a conflict.

Focus on Arms Control and Nonproliferation Strategies

Some Members of Congress and analysts outside government argue that the United States does not need a national missile defense to address the threat of missile attack from rogue nations. Some believe that the United States will not be able to develop and deploy a cost-effective NMD because of daunting technical challenges and certain high costs that would be associated with such a complex system. Others argue that rogue nations with weapons of mass destruction could attack the United States with lower cost, and less obvious, means than ballistic missiles. They note that a BMD system would do nothing to stop cargo ships or other unconventional or simpler means of delivery. Some also argue that a U.S. NMD could actually intensify missile threats to the United States if Russia slows or stops its offensive force reductions in response to U.S. proposals for changes in the ABM Treaty. They note that the strategic arms reduction treaties will eliminate thousands of warheads that could destroy the United States, while an NMD would only attempt to defend against a few dozen warheads.

Most critics of proposals to deploy an NMD do not dispute that some nations hostile to the United States may be seeking long-range ballistic missiles. They would, however, address these threats with a combination of diplomatic, arms control, and nonproliferation tools. They believe that economic, political, and military incentives, could help persuade nations not to pursue missile technologies or sell them to countries of concern. And they argue that a strong international nonproliferation regime could bring more pressure to bear on rogue nations than a U.S. NMD. And if cooperative methods are less than successful, many note that the United States could still deter missile attacks from rogue nations with its overwhelming military superiority in nuclear and conventional forces. They believe that no nation, even one led by a leader with less-than-rational objectives, would risk attacking the United States if it believed that its own survival would be threatened in response.

Factors Affecting an NMD Deployment Decision

Generally, the Administration identifies four broad criteria to consider in its Deployment Readiness Review: an assessment of the threat, an assessment of the arms control and strategic environment, a technical assessment of the program, and an assessment of the cost of the NMD system. Additionally, however, an environmental impact assessment is being prepared. These are discussed further below.

Threat Assessment

In 1995, Intelligence Community concluded in its November 1995 report, *Emerging Missile Threats to North America During the Next 15 Years, NIE 95-19*, that “no country, other than the major declared nuclear powers, will develop or otherwise acquire a ballistic missile in the next 15 years that threaten the contiguous 48 states.” Some Members of Congress disputed this finding, noting that it did not address threats to Alaska and Hawaii, and did not consider the possibility that nations might accelerate missile programs by buying technologies, or full missile systems, from other nations. Some in Congress argued that the Administration had directed the report’s findings to support the slow pace of its NMD program. Congress mandated that an independent panel review the underlying assumptions and conclusions of NIE 95-19. This panel, known as the Gates Commission, noted that the

study may have been conducted in haste and that its conclusions were politically naive because they did not examine the entire range of issues associated with foreign missile developments. However, it concluded that the study had not been politicized with a result directed by the White House.

In 1997, the intelligence community reaffirmed that the United States would not face a new long-range missile threat for 10-15 years. Members of Congress, however, continued to question this conclusion, and in the FY1997 Defense Authorization Act, Congress mandated that the CIA appoint an independent panel to review the emerging missile threat to the United States. In July 1998, this panel, chaired by former Secretary of Defense Donald Rumsfeld, reported that a threat to the United States could emerge sooner than 2010, and that countries such as North Korea or Iran might have long-range missiles within 5 years of deciding to develop such systems. In January 1999, the Clinton Administration appeared to accept the Rumsfeld Commission's conclusions. Secretary Cohen noted that "there is a threat, and the threat is growing, and... it will soon pose a danger... to Americans here at home." He highlighted North Korea as a potential source of this threat.

At around the same time, the intelligence community appeared to alter its assessment of the threat from North Korea. In late 1998, Robert Walpole, the National Intelligence Officer for Strategic and Nuclear Programs spoke about the results of an assessment completed in October 1998. This study concluded that North Korea's Taepo Dong II missile, which is still under development, might have the range needed to reach most of the United States, albeit with an inaccurate and very light payload. And, in testimony before Congress in late February 1999, General Lester Lyles, the director of the Ballistic Missile Defense Organization, stated that North Korea might acquire that capability by the year 2000. The Director of Central Intelligence, George Tenet, also noted in testimony in February that North Korea's Taepo Dong II missile might have the capability to reach Alaska and Hawaii with a larger warhead and the rest of the United States with a smaller, inaccurate warhead.

In early September 1999, the intelligence community released a new estimate of the projected ballistic missile threat to the United States. This report indicates that Russia, China, and North Korea are all likely to have ICBMs that can reach U.S. territory in the next 15 years, that Iran probably will have such a capability, and Iraq possibly may have that capability. The report indicated that Russia will have the most robust force, but, because of economic constraints, its force levels are likely to decline below the levels permitted by existing arms control agreements. China may also have tens of missiles armed with nuclear warheads that could target the United States, and that the Chinese threat would, in part, be influenced by technology gained through espionage. The report also stated that North Korea might test its Taepo-Dong II missile at any time, and that this missile could have the capability to deliver an early-generation nuclear weapon to U.S. territory. The Taepo-Dong I missile, which was tested in August 1998, might also reach U.S. territory, but only with a lighter chemical or biological weapons payload, and with significant inaccuracies.

Technical Feasibility

The meaning of technical feasibility as a criteria for deployment has been relatively open to interpretation. In the NMD debate, it generally carries two meanings. First, there is a political connotation. Many in Congress and elsewhere who want an NMD system deployed as soon as technologically possible tend to believe that this criteria would be met as soon as

the United States develops and tests all the components of a prospective system. This generally means that when a system can be built, it should be built. A second meaning of technical feasibility refers to specific criteria established within the Defense Department in order for a weapon system to proceed toward deployment. Until recently, these included a number of precise and technical criteria to be achieved within the program before a positive recommendation for NMD deployment could be made to the White House.

The NMD program office in the Pentagon has stated that two successful test intercepts will be required to move the program forward. Site construction contracts can be awarded after one successful intercept, but two successes must be achieved before actual site construction can begin. Additionally, a new NMD milestone was established called the "site authority to proceed." This requires that the Secretary of Defense authorize the start of site construction in April 2001 based on the decisions the United States has made regarding the ABM Treaty. (A decision at this time is necessary to meet the scheduled 2005 NMD fielding date.) Last year, the number of flight tests that could occur before the Deployment Readiness Review (DRR) was reduced from four to three. The pace of the program has caused senior technical experts in and outside of the Pentagon to warn that significant program risk exists, which could lead to negative program developments down the road. They warn that the program is being schedule, rather than event driven.

Recent intercept attempts confirm that unambiguous success remains elusive. On October 2, 1999, BMDO reported it had successfully intercepted an intercontinental ballistic missile over the Pacific Ocean. Reportedly, the test demonstrated the "hit-to-kill" technology being pursued in the current NMD program. But, reports of test anomalies surfaced in Jan. 2000, which DoD officials confirmed were true, but who argued nonetheless that the kill vehicle "worked in spite of that." On January 18, 2000, a second test failed to destroy its target over the Pacific Ocean as planned. Defense officials pointed out, however, that other test objectives such as system integration were achieved. Preliminary analyses suggested that the two infrared sensors on the kill vehicle failed in the last seconds of the test, causing it to miss the target. Then, on July 7, 2000, the kill vehicle failed to separate from the booster rocket, so the test of its capabilities never occurred.

In February 2000, additional criticism of the NMD program surfaced from within the Pentagon's Operational Test & Evaluation directorate, warning of undo pressure placed on the NMD program to meet an artificial decision point in the development process later this summer. This echoed similar criticism from a November 1999 Pentagon sponsored panel of technical and national security experts (the Welch panel). Some critics outside the government have focussed on the system's ability to discriminate between warheads and decoys on an attacking missile. They note that adversaries are likely to deploy decoys in an effort to defeat the system, and, therefore, the system will be ineffective as soon as it is deployed. Some conclude that this weakness means the United States should not proceed with the development and deployment of NMD; others conclude that the United States should pursue more robust and advanced NMD technologies, including advanced space-based sensors and boost-phase interceptors.

In July 2000, a growing number of analysts and Members of Congress called on the Administration to delay its decision about NMD deployment. Some argued that the technology had not been proven feasible; others wanted the decision to be made by the new President in January 2001. By late July and early August, reports indicated that Secretary of

Defense Cohen was likely to advise the President to proceed with early steps in the contracting process for the construction of the X-band radar in Alaska. This construction would have to begin by Spring 2001 to support a 2005 deployment date. But the process could be stopped, before construction began, if the next President decided to pursue a different path on NMD. However, President Clinton did not accept this recommendation, and, when he announced that he would not authorize deployment of an NMD system, he cited the test failures and questions about technical feasibility as his primary concerns.

Arms Control & Strategic Environment

In his press conference in January, 1999, Secretary of Defense Cohen stated that NMD deployment “might require modifications to the [ABM] Treaty and the Administration is working to determine the nature and scope of these modifications.” In September 1999, the Administration announced that it was prepared to seek these changes in two phases. In the first phase, the Administration will seek an amendment permitting the United States to deploy its single, permitted ABM site in Alaska, rather than North Dakota. Many believe that this site is better suited to a defense against emerging rogue nation threats. In addition, by limiting the negotiations to a single issue, the Administration hoped to convince Russia that the United States really did seek a limited NMD, and not one that could counter Russian nuclear forces. In the second phase, the United States would seek amendments that would permit the deployment of two or more sites, and the use of more advanced radars and space-based sensors. Some in Congress have criticized this approach, arguing that the United States should enter the negotiations seeking all the changes it would need to deploy an NMD, and that the United States should be prepared to withdraw from the treaty if Russia does not agree. Others argue that the approach will fail because Russia is not likely to agree to even a simple change that would permit the United States to deploy an NMD in Alaska.

In late February 1999, a U.S. team, led by Deputy Secretary of State Strobe Talbott, met with Russian officials in Moscow to begin discussions about ABM Treaty modifications. The U.S. team sought to reassure Russia that the planned NMD would not interfere with Russia’s strategic nuclear forces and that the United States still views the ABM Treaty as central to the U.S.-Russian strategic balance. The Russians were reportedly unconvinced, and continued to argue that the United States has overstated the threat from rogue nations so that it can build a defense that will be able to intercept Russian missiles. At their meeting during the G-8 summit in Germany in June, Presidents Clinton and Yeltsin agreed that the negotiations would resume in late summer 1999. In addition, in contrast to the views that Russian officials had expressed in the preceding months, President Yeltsin appeared to agree that the Treaty could be amended to accommodate U.S. concerns about defending against rogue nation missile threats.

When discussions resumed in mid-August 1999, the two sides again reaffirmed that the Treaty is the “cornerstone of strategic stability,” but Russian officials continued to reject the idea that the treaty could be amended and argued that any changes to the treaty would upset strategic stability and undermine Russia’s national security. Col. General Leonid Ivashov, from the Defense Ministry, reportedly called the talks a failure and said that U.S. insistence on modifying the ABM Treaty was undermining the offensive arms control process. After further discussions in September 1999, the Russian Foreign Ministry released a statement saying that Moscow will insist on “strict observance” of previous arms control agreements. The talks continued in early October, with little progress reported. However, in mid-October,

U.S. press reports and Administration statements indicated that the United States had offered to help Russia complete construction of an early warning radar in Siberia and to expand its cooperation with Russia on the sharing of early warning data. These gestures are reportedly a part of the U.S. effort to convince Russia to modify the ABM treaty so that the United States can deploy an NMD system in Alaska. In November, President Yeltsin warned that any U.S. attempt to move beyond the existing limits in the ABM Treaty would “have extremely negative consequences” for other arms control treaties. Russian officials also stated that Russia was prepared to deploy new multiple-warhead missiles or retain older ones so that it would have forces to penetrate U.S. missile defenses. Many Russian officials continued to insist that the United States had overstated the threat from rogue nations.

Secretary of State Albright reported a slight change in Russia's response to U.S. proposals after meetings in Moscow in early February 2000. Although the Minister of Defense continued to state that major changes to the treaty were unnecessary, the Secretary of State stated that President Putin remained open to discussing possible changes that would allow the deployment of a limited NMD system. However, Russian officials once again rejected the possibility of amendments to the ABM Treaty after discussions in late February and early March, 2000. In June 2000, Defense Minister Sergeyev repeated Russia's contention that the U.S. NMD system could be easily expanded and, therefore would undermine Russia's nuclear deterrent. He argued that the United States would use its NMD system along with its offensive forces to achieve superiority over Russia and China.

When the Russian parliament approved ratification of the START II Treaty in April 2000, it indicated that U.S. withdrawal from the ABM Treaty could be considered an extraordinary event that would lead to Russia's withdrawal from START II. Some analysts believe Russia has linked START II with the ABM Treaty is designed to slow the U.S. move towards deployment of an NMD. They believe that Russia might have concluded that the pressure to modify or withdraw from the ABM Treaty would diminish if U.S. officials and Members of Congress realized that such a move would undermine a popular treaty – START II, – as well as the less popular ABM Treaty. However, Russia may have underestimated the strength of opposition to continued adherence to the ABM Treaty in Congress. For example, several U.S. Senators object to current U.S.-Russian discussions on the ABM Treaty because the United States is seeking only modest changes to the treaty to permit the deployment of a limited NMD system. Twenty-five Senators signed a letter to the President that indicated that such changes would be insufficient because they would preclude the U.S. deployment of more extensive NMD technologies, such as sea-based and space-based systems. In addition, Senator Helms, who chairs the Senate Foreign Relations Committee, has stated that he would not bring up for consideration any arms control agreement reached during the last few months of the Clinton Administration. Consequently, it is possible that, even if the United States and Russia were to reach an agreement on ABM Treaty modifications, the changes would not receive the necessary advice and consent to ratification in the U.S. Senate.

Presidents Clinton and Putin discussed ABM Treaty issues at their summit meeting in Moscow in June 2000. However, they made little progress on resolving their differences. In a Joint Statement on the Principles of Strategic Stability, they agreed that the ABM Treaty remains the “cornerstone of strategic stability,” but that it could be modified in response to changes in the international security environment. They also agreed that the international community faces a growing threat from the proliferation of weapons of mass destruction, but Russia did not agree that this justified any change in the ABM Treaty. Russian officials

continue to question U.S. assertions that North Korea and other nations could soon pose a ballistic missile threat to the United States.

President Clinton sited the continuing impasse with Russia on ABM Treaty modifications when he announced that he would not proceed with NMD deployment at the present time. A delay in the start of construction at Shemya Island would, according to the President, give the United States more time to pursue discussions with Russia in an effort to “narrow our differences” on the nature of threat and the U.S. interest in NMD.

In addition to considering the arms control objectives of the United States, an assessment is being made regarding relations with NATO allies, Russia, and the PRC. Within these countries there is little enthusiasm for the United States deploying an NMD system, and in some cases (including NATO countries), there are strong negative reactions. President Clinton also acknowledged the opposition from U.S. allies when he announced his decision not to proceed with NMD deployment. He noted that a U.S. decision to proceed with NMD deployment must have allied support because key components of the system would be on their territories.

Budget Issues

There has never been a constant, consensus cost figure for deploying an NMD system. For several years, the Clinton Administration estimated that a limited NMD system would cost \$9 to \$11 billion to develop, test, and deploy. In January 1999, the Administration estimated that an initial system of 20 interceptors would cost about \$10.6 billion. In February 2000, the Administration provided a life-cycle cost estimate of \$26.6 billion for an initial system of 100 ground-based interceptors, presumably in Alaska. A couple of months later, the Pentagon provided a life-cycle estimate of \$30.2 billion for the NMD system (\$FY1991). By May 2000, the General Accounting Office reported a cost figure of \$36.2 billion (GAO/NSIAD-00-131), which number BMDO also apparently was using. As time passes, these figures are likely to change further.

A late April 2000 study by the Congressional Budget Office (CBO) estimated that it would cost about \$29.5 billion to develop, build, and operate an initial NMD system (the expanded Capability 1 system) through 2015. This total cost was comparable to the Administration’s estimate of \$30.2 billion (now apparently \$36.2 billion). CBO estimates it will cost another \$19 billion through 2015 to expand the initial system of 100 interceptors and build what is called a Capability 2 and Capability 3 system designed for greater numbers of more sophisticated potential missile threats. Additional space-based sensors would bring the total costs for NMD to around \$60 billion through 2015. NMD critics argue that the true costs will be even higher, perhaps as much as \$120 billion, to include other items some NMD supporters want: space-based and naval-based NMD interceptors.

Environmental Issues

In November 1998, the Administration filed a Notice of Intent in the *Federal Register* that BMDO would begin to hold public scoping hearings in conjunction with its plan to conduct an environmental impact analysis of potential locations for elements of an NMD system (*Federal Register* 63915-16). Thus far, these locations include only Alaska and North Dakota, with Alaska being chosen for the first phase. Although this does not mean a decision

has been made to deploy an NMD system, it is yet another indicator that serious consideration is being given to where such a system and its elements might be located.

The purpose of the public scoping hearings is to gather information from interested parties regarding specific environmental concerns. This input will be considered in a draft Environmental Impact Statement (EIS), which will be published sometime in 1999. More public meetings will be held prior to the final EIS in the spring of 2000. At that time, the Pentagon will announce which NMD basing locations will be considered. Environmental concerns that might be raised in the next year or two over deploying an NMD system in North Dakota, or especially in Alaska in and around National Park lands, could have a significant affect on the calculus to deploy an NMD system in Summer 2000.

In late September 1999, a draft EIS was reported to include language for a possible two-site deployment of NMD interceptors—Alaska and North Dakota. It suggested that up to 100 interceptor silos could be located in one location or up to 100 could be deployed in both one site in Alaska or North Dakota. This appears to represent a change from the original focus on one NMD site. Both sites still are being considered, but the Administration has not made any firm commitment. Congress has called on the Administration to continue to examine the merits of a two-site system before finalizing a decision next year.

NMD in Congress

Budget Issues

Despite the addition of \$6.6 billion to last year's FYDP for NMD deployment, some continued to express doubts about the Administration's commitment to NMD funding and deployment. Some NMD supporters argued that an NMD system could be deployed earlier than 2005 if the Administration allocated more money to development and testing in the near-term. But the program managers in DOD and BMDO believed little more could be done without introducing significant risk into the program. Time and engineering effort, not more money, will lead to effective NMD development as soon as possible, according to this view. This year, an additional \$2.2 billion was added to the FYDP for NMD. Some of the earlier criticisms of the Administration's support for NMD might be softening.

Legislative Debate

Although many in Congress have disagreed with the Administration's plans for NMD, they had not been able to enact legislation that would mandate the deployment of nationwide ballistic missile defenses until March 1999. President Clinton vetoed the Defense Authorization Bill for FY1996, in part, because it contained such a mandate. In 1996 and 1997 Congress considered, but failed to pass, independent legislation that would mandate the deployment of an NMD system. On April 21, 1998, the Senate Armed Services Committee approved the American Missile Protection Act of 1998 (S. 1873, S.Rept. 105-175). This legislation called for the deployment of a national missile defense system as soon as the technology was ready. When the bill came to the floor in May 1998, Democrats succeeded with a filibuster. The effort to invoke cloture failed by one vote, 59 to 41, with only 4 Democrats joining all 55 Republicans in support of the legislation. The Senate failed, again, to invoke cloture, in a vote held on September 9, 1998. Once again, the vote was 59-41.

Senator Cochran introduced this bill again in January 1999 (S. 257). After failing to win changes in the language, the Administration reportedly threatened to veto the legislation because it would only use the state of technology as the measure for deployment, and would ignore considerations about cost, threat, and treaty-compliance. Nevertheless, the Senate Armed Services Committee approved the legislation, by a vote of 11-7, on February 9, 1999. The full Senate approved the bill, by a vote of 97-3, on March 17, 1999. Democrats dropped their opposition to the Senate bill, and the White House withdrew its threat of a veto, after the Senate approved an amendment stating that it is U.S. policy to continue to negotiate with Russia on reductions in offensive nuclear weapons and an amendment noting that NMD programs remained subject to annual authorization and appropriations for funding.

Representative Curt Weldon introduced similar legislation in the House on August 5, 1998 (H.R. 4402) and, again, in early February 1999 (H.R. 4). This legislation simply states that it is “the policy of the United States to deploy a National Missile Defense.” Although it does not specify when or how much missile defense the United States should deploy, supporters argue that would produce a major change in U.S. policy because current Administration policy supports development but leaves a deployment decision for the future. This legislation passed the House Armed Services Committee, by a vote of 50-3, on February 25, 1999, and the full House, by a vote of 317-105, on March 18, 1999.

The Senate took up H.R. 4 on May 18, 1999. It struck all but the enacting clause with the language of S. 257, then approved the modified bill by unanimous consent. The House debated the new version of H.R. 4 on May 20, 1999, and approved the bill with the Senate language by a vote of 345-71. Congress sent the legislation to the President on July 12, 1999, and the President signed in on July 23. Some Members of Congress have been angered by the Administration’s interpretation of the legislation. They note that Administration is not prepared to implement the law because it still plans on deciding whether to proceed with NMD deployment after the program review in Summer 2000. Members, including Representative Weldon, argue that the legislation has eliminated the need for this decision by indicating that the United States will proceed with deployment as soon as the technology is ready. Yet, in a statement issued when he signed the law, President Clinton noted that “by specifying that any NMD deployment must be subject to the authorization and appropriation process, the legislation makes it clear that no decision on deployment had been made.” The Administration still plans to make its deployment decision in Summer 2000, following a review of the threat, the status of the technology, costs, and arms control issues.

LEGISLATION

S. 2549 (Warner)

National Defense Authorization Act for Fiscal Year 2001. Authorizes appropriations for FY2001 for military activities of Department of Defense, for military construction, and for defense activities of Department of Energy, and contains provisions for other purposes. Introduced May 12, 2000; referred to Committee on Armed Services. Reported May 12 (S.Rept. 106-292).

FOR ADDITIONAL READING

CRS Products

CRS Report RS20052. *National Missile Defense: The Alaska Option*, by Steven A. Hildreth.

CRS Report RS20062. *National Missile Defense and the ABM Treaty: Overview of Recent Events*, by Amy F. Woolf.

CRS Issue Brief IB98028. *Theater Missile Defense: Issues for Congress*, by Robert Shuey.