

1. **Lutes, Charles D., Col (sel) and Vautrinot, Suzanne M., Col (sel)** (John F. Kennedy School of Government, Harvard University)

Title: Focusing the Lens: A Case Study of National Missile Defense

APPROVED AS SAF PAS #: 00---0382

Report Documentation Page

Report Date 01MAY2000	Report Type N/A	Dates Covered (from... to) -
Title and Subtitle Focusing the Lens A Framework for National Security Decision-Making With a Case Study Of National Missile Defense	Contract Number	
	Grant Number	
	Program Element Number	
Author(s) Vautrinot, Suzanne M.; Payne, Foster P.; Lutes, Charles D.	Project Number	
	Task Number	
	Work Unit Number	
Performing Organization Name(s) and Address(es) Air Force Fellows Program Maxwell AFB, AI 36112	Performing Organization Report Number	
Sponsoring/Monitoring Agency Name(s) and Address(es)	Sponsor/Monitor's Acronym(s)	
	Sponsor/Monitor's Report Number(s)	
Distribution/Availability Statement Approved for public release, distribution unlimited		
Supplementary Notes		
Abstract		
Subject Terms		
Report Classification unclassified	Classification of this page unclassified	
Classification of Abstract unclassified	Limitation of Abstract UU	
Number of Pages 104		

Focusing the Lens

**A Framework for National Security Decision-Making
With a Case Study Of National Missile Defense**

**Col Suzanne M. Vautrinot, USAF
LTC Foster P. Payne, II USA
Lt Col Charles D. Lutes, USAF**

May 2000

The views expressed in this article are those of the authors and do not necessarily reflect the views of the Department of Defense or any of its agencies. This document may not be released for open publication until it has been cleared by the appropriate military service or government agency

EXECUTIVE SUMMARY

"Now the cleverest thing that I ever did," he went on after a pause, "was inventing a new pudding during the meat-course."

"In time to have it cooked for the next course?" said Alice. "Well, that was quick work, certainly." "Well, not the next course," the Knight said in a slow thoughtful tone: "no, certainly not the next course ... not the next day. In fact," he went on, holding his head down, and his voice getting lower and lower, "I don't believe that pudding ever was cooked! In fact, I don't believe that pudding ever will be cooked! And yet it was a very clever pudding to invent."

- Lewis Carroll, Through the Looking-Glass and What Alice Found There¹

Can decision-makers determine whether the timing is favorable before pursuing a specific course of action in implementing a national security program, particularly an innovation that requires simultaneous changes in technology, organization, strategy and policy? National security innovators have no problem inventing a "very clever pudding," but knowing when the pudding will be cooked becomes a more difficult task.

To answer such a question, this paper develops the Lens Framework: a tool for analyzing the myriad of players and issues that color and shape the decision-making landscape. At the heart of this framework is the idea that, in an environment of constrained and competing resources, the decision to expend intellectual and fiscal capital to push a program forward must be accompanied by a predictive assessment of whether the program has the requisite consensus for success. This assessment is most difficult when the program requires fundamental changes in government institutions, policy, and technology; specifically, when it is a *national security innovation*.

A national security innovation brings with it numerous stakeholders and networks of stakeholders. Each stakeholder, through unique reference frames or lenses, views and magnifies the issues surrounding the program. In accounting for these reference frames, the Lens Framework enables the analyst to more fully evaluate a national security innovation decision and offers a method to help predict whether a particular program is ready to take center stage. While certainly not a new idea, the 21st century does offer new technologies that facilitate a predictive assessment that may have simply been too difficult or time-consuming in the past. This framework relies in large part on the Internet as a research tool to analyze the lenses through which key stakeholders will view the program and its attendant issues.

The Lens Framework is a simple and effective tool for analyzing the supportability of a national security innovation at a static decision point. It is a systematic approach that can be used by congressional staffers, military planners, business strategists, and the like; in other words, the people on the front lines who deal with the program on a daily basis. To outline the framework, this paper makes a cursory review of the theories and models used in its development, and provides relevant historical examples. It then presents a series of analytical steps designed to broaden the view of the stakeholders and subordinate issues surrounding a national security innovation. The essential elements of the Lens Framework include:

- **Stakeholder analysis:** identifies individuals or organizations that seek to influence, or are influenced by, a policy decision on the innovation under consideration.
- **Subordinate issues analysis:** culls the set of subordinate issues that are of interest to various stakeholders and may drive support for, or opposition to, the program under consideration.
- **Stakeholder network and issue network analysis:** diagrams the interaction of stakeholders and identifies issue networks that form around subordinate issues. It also includes a rough assessment of the relative strengths of stakeholders and networks.
- **Synthesis of stakeholders, issues, and networks:** examines the interactions of the stakeholders, issues, and networks. A rough summation of forces, or force field analysis, provides an indication of the policy momentum for a national security innovation.

The mechanics of applying this process are as simple or as complex as time and resources allow. However, even a quick look can provide a wealth of information as to the problems and pitfalls that a program may face. From this approximation, decision-makers obtain a wider view of the barriers to gaining stakeholder support: barriers that can be worked over time, prior to the next decision point. More importantly, it may be determined that a “not-ready-for-prime-time player” innovation is not worth investment of national resources at the current time. The latter concept of “pushing a noodle” is usually understood only after the fact; this framework provides assessment prior to significant investment, and may enable the transfer of those resources to a more viable program.

To highlight the application of the Lens Framework, its predictive capability is demonstrated through a case study of a contemporary innovation--the case of national missile

defense (NMD). Through research and interviews, the framework was used to synthesize the myriad of stakeholders and issues surrounding the NMD debate. We identify those with the strength to influence the program at a specific decision point: specifically, the deployment decision to be considered in the year 2000. Case study application sharpened and clarified the picture of the national security decision-making process and provided substance for continued research and consideration.

In the dustbin of failed policies, government agencies, planners, and policy-makers have found that pushing a program before its time is frustrating, wasteful and, in the case of national security programs, dangerous. This paper provides a simple analytical framework to help determine whether a particular national security innovation, is an idea whose time is *now*.

¹ Lewis Carroll, *Through the Looking-Glass and What Alice Found There* (1863; New York: Peter Pauper Press, 1941). Electronic Text Center, University of Virginia Library 4 Apr. 2000 <
<http://etext.lib.virginia.edu/etcbin/toccer-new?id=CarGlas&tag=public&images=images/modeng&data=/texts/english/modeng/parsed&part=0;>.

TABLES OF CONTENTS

<i>EXECUTIVE SUMMARY</i>	<i>i</i>
<i>TABLES OF CONTENTS</i>	<i>iv</i>
CHAPTER 1: AN IDEA WHOSE TIME HAS COME?	1
CHAPTER 2: THE LENS FRAMEWORK	6
Framework Terminology	7
Conceptual Models	9
Policy-Making Models and the Essence of Decision	9
Network Analysis Models	10
Force Field Analysis Model	12
Building the Lens Framework	12
Step 1: Identify the Stakeholders	13
Step 2: Analyze the Subordinate Issues	17
Step 3: Establish Linkages Between Stakeholders and Issues	18
Step 4: Assess the Strengths of Stakeholder and Issue Networks	20
CHAPTER 3: THE CASE OF NATIONAL MISSILE DEFENSE	23
National Missile Defense: Promises and Problems	24
Step 1: Identify the Stakeholders	28
Policy-Making	30
Institutional	34
Opinion-Making	40
Business/Technical	45
External	47
Step 2: Analyze the Subordinate Issues	52
Threat	53
Technical	55
Economic	56
Strategic	58
Organizational	61
Domestic Politics	63
Step 3: Establish Linkages Between Stakeholders and Issues	65
Threat	66
Technical	69
Economic	71
Strategic	73
Organizational	74
Domestic Politics	75
Step 4: Assess the Strengths of Stakeholder and Issue Networks	76
National Missile Defense: Not Quite Ready for Prime Time	78

CHAPTER 4: OBSERVATIONS AND CONCLUSIONS	85
APPENDIX A: NMD ARCHITECTURE	89
WORKS CONSULTED	91

CHAPTER 1: AN IDEA WHOSE TIME HAS COME?

“There is one thing stronger than all the armies of the world, and that is an idea whose time has come.” – **Victor Hugo**¹

So how does a policy-maker decide that the time has come? This research paper is based on the assertion that, in an environment of constrained and competing resources, the decision to expend intellectual and fiscal capital to push a program forward must be accompanied by a predictive assessment. The goal of this assessment should be to determine whether the program has the requisite consensus for success; or conversely, whether cross-institutional barriers signal setback or failure. Such an assessment is most difficult when the program is an *innovation*: a concept that requires fundamental changes in government institutions, policy, and technology. Past decades provide ample examples: Apollo changed the organization of the defense/civilian hierarchy for space development; inter-continental ballistic missiles and the policy of deterrence changed the fundamental offense/defense prioritization of the Defense Department; and the advent of aircraft carriers changed the structure of naval forces and equipment. Each was a hard fought battle, but in the end, a consensus was built that moved the innovation toward eventual success. Yet valuable resources were spent in false starts for these programs and in other programs that never did gain the requisite support.

Deciding when a national security innovation program’s time has come has always been a tough call. In November 1960, after reviewing the \$48 billion Apollo program price tag to put a man on the moon, President Eisenhower decided to cancel it because he was “not about to hock his jewels.”² President Eisenhower had previously approved the first space policy, created the National Aeronautics and Space Agency (NASA) in 1958, increased research and development funding by over 130% in five years, and presided over the first successful satellite missions. Yet Eisenhower, his administration, the National Academy of Sciences (NAS), and the first director of NASA, T. Keith Glennan, all agreed that a moon landing was not a priority.³ Program advocates were shocked that in the midst of what they perceived to be a heated space race with the Soviet Union, the administration had pulled the plug, potentially signaling a weakness in United States national security policy. Less than one year later, in May 1961, President John F. Kennedy reversed the decision and announced approval for Apollo, declaring that the United

States would put a man on the moon by the end of the decade. Congress voted nearly unanimously to approve the requested \$30 billion for the program, effectively increasing the NASA budget by 50%. The question that Apollo advocates and foes faced in the early 1960s: was this an idea whose time had come?

The fundamental objective of this paper is to offer a simple and effective framework to help answer this question for future programs. The need for this framework is particularly acute at the staff level: among those individuals involved in programmatic details but who also advise the ultimate decision-makers. Interviews conducted in the course of this research verified the need to overcome the bureaucratic and insulated nature of governmental, as well as non-governmental, institutions. Interagency discussion and conference tend to occur only at the senior levels: in interagency working groups, through congressional testimony, or in more informal settings. At the staff level, where recommendations to decision-makers are initiated, there is no direct assessment of external agencies' positions on the program or the related subordinate issues, which might garner or prevent support. Yet this assessment is critical.

At the heart of the Lens Framework is the idea that any national security innovation brings with it numerous stakeholders and networks of stakeholders, who view and magnify the issues surrounding the program through unique reference frames or lenses. These views color and focus the influence each stakeholder applies to the policy decision. Ultimately, the confluence of these forces will either support the innovation toward success or weigh it down in failure. By viewing a program through all of these lenses simultaneously, the policy analyst can focus the overall debate into a clear picture, determine the alignment of forces shaping the debate, and make a rough assessment of the program's current viability.

A little more detail on Apollo program stakeholders and their subordinate issues provides a good historical illustration. Apollo did not morph between 1960 and 1961: the program remained the same. Yet the players and their institutional concerns changed dramatically. President Kennedy's election rhetoric had called for a "US first..." strategy and his views were magnified by the Soviet launch of the first man into space in April 1961. Walter Heller, chairman of the Council on Economic Advisors, wasn't specifically interested in the technology or the politics of a moon launch. His issue was implementing the theory that a significant increase in government spending (unbalancing the federal budget) would lift the level of employment and the rate of growth; thus he and the council advocated federal spending for the

space race as such a vehicle. Vice President Johnson, the former Senate Majority Leader, had always supported Apollo, yet now he was able to capitalize on his reputation and contacts to herald congressional support. Chairman of the House Space Committee, Overton Brooks, used the space threat analysis provided by the U.S. Air Force (USAF) to support additional space spending, but used his influence to give NASA a preeminent role. He demonstrated his issue regarding increased commercial/civilian (vice military) focus when he told the White House in February 1961 "...any step up in the space program must be designed to accelerate the civilian program of peaceful exploration and use."⁴ James Webb, the new Director of NASA, was chosen not as a scientist but as someone whom the President felt would understand and aggressively advocate this great issue of national policy; i.e. to see and articulate the space race through the same lens as Kennedy. Secretary of Defense McNamara was not principally focused on a moon landing, rather his issue was that defense research and development spending was too high and saw the aerospace lobby as an obstacle to his new plans for cost accounting. To him, giving Apollo to NASA pleased the aerospace lobby and congress, while leaving military space programs bereft of former allies and susceptible to his reforms.⁵ Noticeably absent in this policy change and its decision process were the scientists and engineers who had published the initial reports and would eventually develop the technologies required for the program.

The support for Apollo and its timing was a combination of events, players, and a set of related subordinate issues that combined within the governmental decision process to make Apollo a national priority. The lesson from Apollo for today's programs: success or failure at a decision point depends on the influence of the actors and issues surrounding a program. Although this is certainly not a new idea, the 21st century does offer new technologies that can facilitate a more predictive assessment on actors and issues, an assessment that may have simply been too difficult or time-consuming in the past. The Lens Framework relies in large part on the Internet as a research tool to analyze the lenses through which key stakeholders will view the program and its attendant issues. The Internet and the Lens Framework enable a quick evaluation that can and should become commonplace in national security decision-making.

Before presenting Lens Framework details, practitioners must understand a few caveats:

- First, the framework specifically addresses innovation programs: those requiring major changes in technology, organization and policy. Innovations are most likely to garner opposition or bureaucratic resistance due to their inherent changes. Sustaining

or follow-on technologies, for example a next generation aircraft or submarine, might be in competition for funding support but would not illicit the potential cross-institutional opposition or require the analysis provided by this framework.

- Second, as a “snapshot in time”, this analysis provides only a static look at a dynamic situation; and as such it is an iterative process that should be repeated as significant events change. Since the decision-making process in most national security programs is event or budget based, a static analysis provides sufficient information at each recurring decision point.
- Finally, this is not a framework to assess the relative merits of a given program. Any program that reaches this level of debate is assumed to be one of many with merit. The question at this point is whether the program in question is ready to run the gauntlet of cross-institutional barriers.

To outline the Lens Framework, this paper makes a cursory review of the theories and models used to develop the framework in its final form. Each element will be discussed in some detail, and relevant historical U.S. national security examples are used as illustrations.

To highlight the effectiveness of the Lens Framework, this paper also demonstrates its use through a case study of a contemporary innovation that is bubbling to the top of the national agenda—the case of national missile defense (NMD). By applying this framework to the national missile defense deployment decision, we are able fine-tune the application of the framework on a current, real-world problem. The inherent technological challenges, changing organizational structure, and implications for U.S. foreign policy priorities make the deployment decision of a National Missile Defense system an excellent case study for the Lens Framework for national security innovation. For national missile defense, just as for any strategic innovation vying for national resources and energy, the question remains: *Is this an idea whose time has finally come?* With the Lens Framework, we now have a systematic approach for answering that question.

Chapter 1 Endnotes

¹ Victor Hugo, Constituent Assembly and National Assembly at Bordeaux, 1861. Quoted in Lewis D. Eigen and Jonathan P. Siegel, ed., *The MacMillan Dictionary of Political Quotations* (New York: MacMillan Publishing Company, 1993) 540.

² In November 1960, Donald Hornig chaired an AD-Hoc Panel on Man-In-Space and reported to Eisenhower that a circumlunar voyage would cost an additional \$8 billion and a manned lunar landing an extra \$26-48 billion. See Walter A. McDougall, *The Heavens and the Earth: A Political History of the Space Age* (New York: Johns Hopkins University Press, 1997) 220–226.

³ In October 1960, Glennan told Eisenhower that “If we fail to place a man on the moon before twenty years from now... there is nothing lost.” Quoted in: McDougall 224.

⁴ The U.S. Air Force had issued a Space Study Report in March 1961 recommending that a new Air Force Systems Command be given the task of manned spaceflight (among other space activities). It further lamented that the U.S. was not yet organized to exploit the future possibilities of space and was under-reacting to the rate of Soviet progress—the intent may have been overstated but was used to buttress the call for the NASA Apollo program. See McDougall 313.

⁵ Daniel Hastings, class lecture, Space Policy Seminar, Massachusetts Institute of Technology, 25 Feb. 2000.

CHAPTER 2: THE LENS FRAMEWORK

*To the Looking-glass world it was Alice that said,
"I've a sceptre in hand, I've a crown on my head;
Let the Looking-glass creatures, whatever they be,
Come and dine with the Red Queen, the White Queen, and me."*

- Lewis Carroll, *Through the Looking-Glass and What Alice Found There*¹

National security decision-makers, constrained by competing resources and faced with tough policy decisions, often wrestle with a new program to determine if the time is right to fully commit to the new course. Yet these leaders, and those that advise them, tend to view these programs through a political mirror that reflects only their own preconceptions. Just like Lewis Carroll's Alice, a policy-maker and his advisors must see *through* the looking glass to view the world on the other side. By using this looking glass as a lens instead of a mirror, the analyst can see a clearer picture – one that focuses on the views of other participants in the decision-making process and puts the answers in clearer perspective.

The framework presented in this chapter is a systematic approach for analyzing the supportability of a national security innovation at a static decision point. It can be used by congressional staffers, military planners, and business strategists; i.e. the people on the front lines who deal with the program on a daily basis. These “troops in the trenches” are often blind to the views and interests of both governmental and non-governmental parties outside their spheres of influence. The resultant lenses through which they view a particular innovation program can be distorted and lead to miscalculations as to the political feasibility of an innovation. Although it may appear obvious that those who advise the decision-makers should peer through both their own lens and the lenses of other stakeholders, in reality this is often not the case. The Lens Framework provides a simple, systematic means for making a quick assessment of the policy-making landscape in order to understand the full spectrum of viewpoints that will influence the decision.

The Lens Framework consists of a series of analytical steps: stakeholder analysis, subordinate issue analysis, issue network analysis, and a final synthesis of the previous elements. The synthesis is intended to identify the interactions between stakeholders, networks, and subordinate issues that may drive a policy decision in a national security innovation program. The underpinnings of this framework are derived from several conceptual policy-making models.

Theoretical models are difficult for bureaucratic practitioners to apply operationally; therefore, several of these theories were distilled into a user-friendly prescriptive framework. This chapter briefly reviews the conceptual models used in the development of this approach and describes their contributions to specific elements of the Lens Framework.

Framework Terminology

Before describing the elements and functional use of the framework, it is useful to establish a common understanding of the terms *national security innovation*, *stakeholder*, and *strength*. The term *national security* is intended to mean a concept that has implications for the security policy of the United States. In this application, the discussion is limited to concepts that influence the military instrument of power, however a broader application of the term with regard to any of the instruments of power (military, diplomatic, economic, and information) could also be made.

The more difficult term is that of *innovation*. The definition in this paper combines political science theories as well as concepts currently gaining popularity in the business community. Noted political scientist Samuel Huntington has argued that a strategic program innovation includes changes in weapons, forces, organization, personnel, and deployments, but allowed that advances in just one of these elements by itself does not constitute an innovation.² Political scientist Matthew Evangelista further emphasized that innovation leads to significant changes in the realm of strategy, in the organization of military forces, or in the distribution of resources among services.³ Over the last decade, the business community has articulated a similar synthesis between technical development, organizational structure and marketing strategy. It recognizes that innovations, unlike simple technical advances, require corporations to marshal and focus the necessary resources to overcome technical challenges, organizational hurdles and new market strategies.⁴

A true innovation is more than just a new weapon system or a new technology on the market. New equipment or new weapon systems can be part of an innovation. However, without a concurrent change in both strategy and organization, a weapons change by itself does not constitute a national security innovation. Technological breakthroughs may ease the development of new weapons, however parallel changes in policy, strategy and organization to employ the new weapons tend to be complex, slow, and controversial. Thus, a national security

innovation is defined here as a program that requires simultaneous changes in equipment, policy, strategy and organization.

The development of the ICBM in the early 1950s is a clear example of a national security innovation.⁵ Missile technology required fundamental changes in thinking about strategy, with concepts such as strategic deterrence and continental defense distinctly different from the strategies developed during WWII's "strategic daylight bombing" campaigns. While a new organizational structure was required to implement this innovation, the resultant slow pace of development can be directly attributed to the Air Force's efforts to cling to old organizational strategies and structures inherent in its manned bomber force. Though the technology had advanced years earlier, innovation came only after Soviet competition, in the form of the Sputnik launch in 1957. This caused a firestorm of controversy, eventually galvanizing the United States into action. Technical challenges, bureaucratization, and controversy are common elements of many weapons programs, but it was the fundamental reshaping of strategy and organization that made the ICBM development a true national security innovation.

Recognizing the scope and diversity of actors within the national security decision-making process is key to understanding the bureaucratic and controversial nature of a national security innovation and is fundamental to our analytical framework. In this paper, the term *stakeholder* refers to the groups, or individuals representing these groups, who are engaged in either framing discussion or making decisions regarding a particular national security innovation. Individuals and group stakeholders may be assessed equally in the framework if they are functionally similar in their effect on the decision-making process. The analysis also seeks to identify particularly influential individuals, organizations, or networks that seem to dominate other stakeholders in driving the policy.

Each stakeholder filters the problem through his own lens, and his ability to shape the process according to that view depends on his political strength. For our purposes, a stakeholder's *strength* is his ability and desire to influence the processes that drive decisions. Strength may be less than available power in one of several ways. First, a stakeholder may choose not to apply his available power. Secondly, he may be constrained from applying power by formal or constitutional arrangements. Finally, he may be unable to apply power to agenda items that are formulated primarily below his level of attention. For example, although the President may be considered a powerful stakeholder in most policy issues, his strength may be

relatively weak in influencing an outcome if he in fact chooses not to engage in a particular debate. Furthermore, many national security innovations are developed by a bureaucratic method and may not garner the attention of the President until the outcome is *fait accompli*. In this case, the President may be a stakeholder with little strength in influencing the outcome, whereas the institutional actors may be very strong. Thus, a stakeholder in a powerful or influential policy-making position that chooses not to engage in an issue will have little relative strength. Alternatively, a single stakeholder who seeks to become a policy entrepreneur may gain considerable strength in driving a particular issue as he focuses his energies and resources on that priority.⁶

Armed with this understanding of underlying terminology, we now turn to the conceptual foundations from which the Lens Framework was derived.

Conceptual Models

The Lens Framework was fundamentally based on several well-known contemporary political and social science theories. Concepts such as the rational actor model, the bureaucratic politics model, the organizational behavior model, the political process model, network analysis, issue network theory, force field analysis, and the garbage can model, to name a few, all provided valuable insight into the policy-making process. Unfortunately, in large bureaucratic organizations, those individuals at the staff level, who shape the views of the decision-makers, have had little time to explore these theories. In developing the Lens Framework, the goal was to distill the major concepts of these theoretical models into a simple analytic tool that can be operationalized in day-to-day policy-making situations. The more salient aspects of these important theoretical works are provided below:

Policy-Making Models and the Essence of Decision

Noted political scientist Graham Allison, in his seminal work *Essence of Decision*, describes three policy-making models that provide exceptional insight to analyzing decisions in foreign and military policy.⁷ In Allison's first model, the "rational actor model," nation-states analyze alternatives for achieving their goals both systematically and rationally, choosing the most effective and economical alternative. The analyst, knowing the state's goals and objectives, can predict its decisions based on rational calculation. The simplistic nature of this model tends

to be its weakness as it ignores the internal workings of the policy-making process. Using this analysis alone, Allison believes there is a tendency for policy planners to default to a simple worldview.⁸ A more in-depth model is needed to understand the underlying views of the stakeholders in a policy decision.

Providing a more comprehensive approach, Allison's second model, the "organizational behavior model," treats the decision-making process as the result of outputs of large organizations functioning according to regular, predictable patterns of behavior. This model is similarly known in political science literature as the "bureaucratic politics model" and implies that bureaucratic organizations are the most important determinant of the policy outcome.⁹ The behavior of these organizations relevant to the issue at hand, (in our case a national security innovation), is governed by routines, processes, standard operational procedures (SOPs), and checklists that already exist.¹⁰ In our framework, we considered the processes that apply to a particular national security innovation as the lenses through which each organizational stakeholder views the issue. In analyzing a national security innovation, we might consider outputs from such processes as the Department of Defense's acquisition process, the Department of State's treaty negotiations, and the congressional budget cycle.

The third model, the "governmental politics model," assumes that policy decisions are the result of bargaining among players in the national government. The interaction of competing preferences forms the outcomes that are national policy. Rather than a single rational actor, or a set of organizational processes, this model assumes many actors as players. Roger Hilsman describes this similarly as the "political process model" and asserts that the most important determinant for each actor, or stakeholder, is his own conception of national, organizational, and personal goals.¹¹ He further asserts that in bargaining, political actors have to anticipate what the others will do and shape their own position accordingly.¹² Thus, fundamental disagreements arise among reasonable people who individually or organizationally wield power.

Network Analysis Models

A core element of the Lens Framework is the linkage of stakeholders and subordinate issues, particularly as they form into strong issue networks. In identifying stakeholders and their sources of power, it is useful to look beyond formal decision-making procedures as set down by law and regulation. A broader network of organizations and influential individuals both inside

and outside “the Beltway” makes up what Erik Pratt calls “the defense policy network.”¹³ These networks tend to overlay the traditional bureaucracy and within these networks exist a complex set of interactions both inside and outside of organizational structures. These interactions shape which issues reach the official agenda, influence the relative “political capacities, ideas, and demands”¹⁴ of individual stakeholders, and shape national security policy decisions. Singular stakeholders may not possess enough individual power or strength to drive policy but when combined in a policy network, they can dominate a decision process. A simplified network analysis provides further refinement to the Lens Framework by seeking to identify the most powerful stakeholder networks.

A similar concept is *issue networks*, as defined by Hugh Hecl. These are shared-knowledge groups having to do with some aspect (or, as defined by the network, some problem) of policy.¹⁵ Stakeholders, through their individual lenses, may focus on certain concerns subordinate to the overall policy debate. When like-minded stakeholders converge, the issue networks coalesce around subordinate issues. A national security innovation may give rise to numerous subordinate issues and the influence of issue networks on these subordinate issues may decide the path of the larger policy. Stakeholders may move in and out of issue networks according to their own interests, especially those outside the formal government. Thus, identification of such networks requires constant updates.

Huntington’s elaboration on the interaction of these stakeholders describes a process of interaction that is fundamental to the framework:

*These groups have different perceptions of strategic needs and different preferences about the ways in which those needs should be met. The conflicts ebb and flow about a variety of specific issues and proposals...Innovation is more the result of accretion than of any single decision.*¹⁶

Although we agree that innovation is an ongoing dynamic process, we also believe that any process can be viewed as a series of discrete steps. The Lens Framework provides the tool for looking at an innovation at a discrete step, prior to a critical decision point, to determine if the timing is right.

Force Field Analysis Model

In the Lens Framework, we treat stakeholders and subordinate issues as forces acting upon the decision process. Each stakeholder or network of stakeholders may exert their influence in different directions. A final conceptual model is needed to determine the direction of forces acting upon a policy decision. A simple, yet effective presentation is provided by organizational behavior theory based on force-field analysis of sociologist Karl Lewin.¹⁷ Forces acting for a policy encounter opposing forces acting against that policy. Change in the current direction of the policy will occur only when forces in one direction outweigh forces in the other direction. In the situation where opposing forces are roughly equal, or where there is no force acting on a policy, bureaucratic momentum or inertia, will keep the policy on its current course.¹⁸

To overcome this inertia, forces in a certain direction must be proportionally larger than forces in the opposite direction in order to justify pushing an innovation. The Lens Framework seeks an assessment of relative or qualitative magnitude, at a static or decision point, to determine whether now is the right time to move forward.

Building the Lens Framework

The conceptual models discussed in the previous section provide the groundwork for building the analytical framework needed to view whether a national security innovation's "time has come." In applying this framework, the practitioner must analyze stakeholders, subordinate issues, and networks. The essential elements of the Lens Framework include:

- **Stakeholder analysis:** This step identifies individuals or organizations that seek to influence, or are influenced by, a policy decision on the particular innovation under consideration.
- **Subordinate Issues Analysis:** This step identifies the set of subordinate issues that are of interest to various stakeholders and may drive support for, or opposition to, the program under consideration. Subordinate issues may be an element of the program itself, such as funding or technology readiness. Conversely, as we saw with Heller's growth through federal spending considerations in the Apollo example, subordinate issues may also be independent of the program under consideration, i.e. a related catalyst.

- **Stakeholder network and issue network analysis:** This step looks at the interaction of stakeholders and identifies issue networks that form around subordinate issues. It also includes a rough assessment of the strengths of the primary stakeholders and networks in relation to one another.
- **Synthesis of stakeholders, issues, and networks:** The final step examines the interactions of the stakeholders, issues, and networks. A rough summation of forces, or force field analysis, can provide an indication of the policy momentum for a national security innovation.

The mechanics of applying this process are as simple or as complex as time and resources allow. However, even a quick look by an analyst, staff member, or project manager can provide a wealth of information as to the problems and pitfalls that may face a program. From this approximation, he may gain a wider view of the barriers to gaining stakeholder support: barriers that can be worked over time, prior to the next decision point. More importantly, he may determine that a “not-ready-for-prime-time-player” innovation is not worth investment of national resources at the current time. The latter concept of “pushing a noodle” is usually understood only after the fact; this framework provides a good understanding prior to significant investment, and may enable the transfer of those resources to a more viable program. The following discussion further expands each step of the Lens Framework.

Step 1: Identify the Stakeholders

To explain why a particular formal governmental decision was made... it is necessary to identify the games and players, to display the coalitions, bargains, and compromises, and to convey some feel for the confusion.¹⁹

Identifying stakeholders is not unlike creating a guest list. The christening of an innovation has some of the same elements of the children’s story, *Sleeping Beauty* ... the guest who goes uninvited can wreak serious havoc. While the F-22 is not by our definition an innovation, its story provides a good example of the impact of unconsidered stakeholders. Fresh from an awesome airpower display in the Balkans in early 1999, the Air Force had reason to be optimistic about its fight to gain funding for its highest priority new program, the F-22. Stakeholders, including the Defense Department, the Lockheed-Martin Corporation, the Clinton administration, and a majority of members of Congress including both the House speaker and

Senate Majority leader had all declared support. With bipartisan support, the program encountered little controversy and hearings on the Hill were relatively tame, gaining approval from the Senate for full funding. Then on July 12, 1999 a small band of House appropriators delivered a shocking blow. Rep. Jerry Lewis (R-Ca), the chairman of the House Appropriations Defense Subcommittee, and Rep. John Murtha (D-Pa.), its ranking Democrat, announced their panel had zeroed out F-22 production funds. With no money for production in the next fiscal year, the costs in future years would become prohibitive. The Air Force and its network of F-22 supporters were stunned. With one swift blow, this overlooked set of stakeholders threatened to kill the entire project. At issue for Lewis, was the rapidly rising cost of each aircraft, potential duplication in other fighter programs, the pressing need in other defense areas, and skepticism of the viability of future threats. Rumors also arose that Lewis was acting on the advice of a former Marine general, a stakeholder whose opinion may have been expressed within the Department of Defense but was discounted. For the balance of the Washington summer, the F-22 network put on a full-court press to save the suddenly beleaguered program. Had the F-22 network adequately identified Lewis and his sub-committee as viable stakeholders early on, they could have assuaged his concerns and potentially won his support. This “Battle of the F-22” was won, but at high cost in political capital, intellectual resource, and program expenses.²⁰

John Kingdon defines two general groupings of actors in the policy-making arena: *the visible cluster* and *the hidden cluster* of actors.²¹ The visible cluster consists of those actors who receive a lot of press and public attention and include the president and his high-level appointees, prominent members of Congress, the media, and political parties. The hidden cluster includes academics, career bureaucrats, congressional staffers, and administration appointees below the top level. These stakeholders may not be as easily identified but can have profound influence on policy decisions. Often, members of the hidden cluster will network with members of the visible cluster in order to push a particular policy.

Identification of stakeholders begins by looking in the visible cluster, with an eye toward identifying those in the hidden cluster. For national security innovations, potential stakeholders are grouped into five categories:

- ***Policy-making***: In the policy-making arena, we find those decision-makers in the “inner ring” of power who have the ability to most affect a national security innovation. The President, his administration, and Congress are primary representatives in this group.

- ***Institutional:*** The institutional category includes those bureaucracies and organizations that will have a major role in developing the national security innovation. In matters of national security and military policy, the most prominent of these organizations are the Department of Defense (DoD), represented primarily by the military services; the Department of State, represented by the Foreign Service; and the Central Intelligence Agency (CIA).²² A typical set of stakeholders may include the organizations charged with developing and implementing the innovation as well as those parties that stand to lose either funding or missions.
- ***Opinion-making:*** A wide array of individuals and organizations will seek to influence the opinions of those policy-makers charged with making decision about a national security innovation. These may include former government officials, think tanks, interest groups, political parties, op-ed columnists and the media.
- ***Business/technical:*** Most national security innovations will involve some technical breakthrough that will involve business and technical interests. As developers for profit, business contractors have a powerful economic stake in selling their ideas and products. Also included in this category are the quasi-independent national laboratories that often have the task of determining technical feasibility.
- ***External:*** A number of other affected parties may arise in a particular national security debate that fall outside of the normal policy process. These stakeholders do not have a direct influence on any subordinate issues, but may exert influence through other stakeholders. In this category, we consider primarily influences from foreign parties: allies, foreign governments, international alliances and non-governmental organizations (NGOs).

Note that each category does not by itself constitute a network or issue network. In fact, networks will form with representatives from several of these categories and the strongest networks will form with representation from many categories. Within a given category, stakeholders will be found both for and against a given issue, thus it is not useful to determine a representative stakeholder for each category or to evaluate effects of a certain category on the issue.

In order to avoid the pitfalls of missing a stakeholder, several identification methods should be incorporated simultaneously. We recommend iteration of three search methods for

identifying potential stakeholders: conducting an open research survey, reviewing known institutional groups and researching conferences to identify new groups.

A simple unconstrained literature search, casting a wide net into libraries, journals, newspapers, articles, speeches and meeting records on the program or innovation, provides an extensive list of potential stakeholders. Ten to twenty years ago this approach might have been daunting. But, in the Internet age, a single unfettered search can literally bury the researcher shoulder-deep in thousands of sources. Once identified, the sources can be culled for more specific relation to the topic and specific identification of potential stakeholders. It is important to note at this point that the articles may include a broader reference than the specific innovation in question. Yet, since the search purpose is to broadly identify potential stakeholders, the divergence of issue details should be overlooked in favor of focusing on the “who” aspect of the articles; *who wrote it, who says so, and who cared*. The potential stakeholders can be identified based on authorship, quotation as an expert within a published piece, or even reference to an individual’s potential involvement in the decision process. This method allows a first-cut list of potential stakeholders.

Another method is a structured search of known or expected organizational participants and should be used in addition to the open data search described above. Stakeholders in each of the five broad categories discussed previously (policy-making, institutional, opinion-making, business/technical; and external) are likely to impact a national security innovation. They can be targeted via web sites, institutional journals, published speeches, or articles to extrapolate active participation in or comment on the particular innovation program. Note that this method of researching within these broad categories varies slightly based on the general method each uses for examining, publishing, and reporting on various issues. For example, the policy-making category would specifically include the committees/subcommittees of Congress with delegated responsibility for issues related to the specific program. These stakeholders could be researched by reviewing meeting minutes and focusing on individuals selected to testify at the meetings. In contrast, researching the institutional category can be assisted by formal public affairs channels or organizational charts, which give insight to stakeholders with policy, technology, funding or operations responsibility within the institution. Unfortunately, bureaucracies rarely highlight the experts or individuals advising decision-makers within the institution. The quiet experts who prepare the visits or reference documents for these institutional leaders are publicly faceless and

silent. For this category, the data search provides stakeholder information, but phone calls and interviews may be necessary to gain data on subordinate issues or stakeholder strength.

Researching conferences to identify new stakeholders provides the most surprising, and possibly the most effective method of both confirming stakeholder identification and identifying unexpected stakeholders. This method involves the comparison of those organizations or individuals chosen to participate in special conferences or study groups on the innovation topic or program. John Kingdon points out that policy communities are made up of specialists “scattered both through and outside government.”²³ They have in common their concern with one area of expertise and their interactions with each other, yet there is often a fragmentation in their perspectives on the course or impacts of a policy or program decision in that area of expertise. An Internet search, particularly think tank and university web sites can identify the individual participants as well as the institutions represented by special study groups or conferences on the innovation program or topic area.

Step 2: Analyze the Subordinate Issues

Inherent to any national security innovation is a subset of subordinate issues that affect the ability of the larger policy to come to fore on the national agenda. These subordinate issues can take a life of their own, with different factions of stakeholders looking for grist to maneuver the policy in their own direction. Many stakeholders will be “one issue wonders” in that they tend to view the entire policy through the lens of one overriding (to them) subordinate issue. Thus it is important to identify these subordinate issues to understand these stakeholders’ lenses. Due to the particular nature of a national security innovation, these issues will tend to fall in the following categories:

- ***Threat:*** Perhaps the biggest impetus to national security innovation is a perceived new threat to the security of the United States. Whether innovation is born of, or simply justified by, this threat may depend on the stakeholders’ point of view.
- ***Technical:*** Most innovations will constitute new technical capabilities, and the disagreements that arise will become issues in this category. Due to the sophisticated nature of modern weaponry, these technical issues tend to be confusing to the majority of stakeholders. Identifying the issues that fall into this category is a relatively easy matter, although sorting out science fact from science fiction may not be.

- **Economic:** As with any policy item, economic factors play a key role. In an era of competing financial resources, everyone might agree that a policy is a great idea, but getting someone to pay for it at the expense of another program is difficult. Innovations that represent new missions to the implementing organization will have difficulty competing for dollars with existing programs. In the public sector, competing defense contractors have huge economic incentive to take one side or the other.
- **Strategic:** As an innovation may change the security strategy of the United States, it brings to fore numerous strategic issues. Treaties with other nations, alliances, and other strategic agreements may well be impacted.
- **Organizational:** Since innovations imply organizational change, controversial organizational issues will arise. Debate over which existing organizations will change, or whether totally new ones will be created, cause turmoil within the affected stakeholder sets. Outlining functional responsibilities, defining or re-defining roles and missions, and providing funding support prove to be particularly challenging.
- **Domestic Politics:** In the push and pull of democratic politics, some issues arise that seem to have little to do with the particular national security policy at hand. A mix of hidden agendas and interplay with other domestic priorities affects the ability of a national security innovation to gain political support. These issues may often be the most difficult to identify, yet may contain the most significant impetus for driving a policy in a certain direction.

The methodology for identifying subordinate issues is the same as the method for identifying stakeholders. In fact, the two pieces of information, who is interested and which subordinate issue is of interest, can be cataloged in the same search as for stakeholders. This process helps in providing the connection between stakeholders and issues that will occur in the next step.

Step 3: Establish Linkages Between Stakeholders and Issues

Once stakeholders and issues have been identified, the practitioner can look for the emergence of networks. As previously discussed, stakeholders may be single actors or organizations, and they may form together into networks. Stakeholders tend to form networks with those that share similar views, and often have a blind spot for those that do not. In identifying issue networks, it is helpful to group stakeholders who share similar focal points.

These networks can form in two ways: as simply an alliance of like-minded stakeholders, or around a particular subordinate issue. In the first case, a simple stakeholder network, we seek to identify the actors who may band together to increase their collective strength on the innovation program. These networks may vary in form ranging from loose affiliations to formally adopted alliances. The more informal networks may be difficult to identify, but are likely to be more powerful.

In the case of networks which form around subordinate issues, we should look particularly at issues that can “make or break” a policy. Issue networks form around these subordinate issues and thus impart their collective strength. By identifying which subordinate issues garner the most attention from the strongest stakeholders, we can then assess the strength of the subordinate issue on the overall policy.

To find the strength of an issue, we must first assess the strengths of various stakeholders relative to others in that issue area. Some stakeholders may be particularly engaged in one subordinate issue (i.e. high strength), while noticeable absent in another (low or no strength). Not all stakeholders are created equal. We do not refer to the use of the term strength of a stakeholder in the normative sense, but rather in the relative sense as it relates to the particular innovation or policy at hand.

In assessing a stakeholder’s relative strength, first consider the stakeholder’s position in the policy process. Those with direct constitutional, statutory, or legal authority have the greatest potential strength. Beyond this visible determinant of power, we can consider a number of other factors. The past performance of the stakeholder in influencing policy decisions may yield significant insight if such performance can be determined. Additionally, the stakeholder’s reputation or notoriety may be assessed. The stakeholder’s level of effort with regard to the policy may be determined from speeches, writing, and amount of activity in the policy area. His support base in terms of constituency, interests, or number of organizations, his location and accessibility to other stakeholders, and his ability to influence those stakeholders should be considered. External influences such as elections, conflicts of interests, or legal prohibitions could also be significant. Finally, an assessment must be made of the relative priority the stakeholder places on the given policy issue. A high profile stakeholder may have numerous policy issues on his plate, and his ability or inclination to utilize power on the particular innovation under consideration is crucial to assessing final strength

By identifying the issue networks, the interactions of stakeholders and processes that flow around issues, we are able to understand and diagram the relationships of the primary stakeholders. The importance of each subordinate issue can then be compared in terms of the accumulated strengths of the stakeholders in the diagram—providing its relative magnification power on the overall policy decision.

Step 4: Assess the Strengths of Stakeholder and Issue Networks

The final step is the culmination of effort in identifying stakeholders, issues, and networks. Each stakeholder exerts influence, either singularly or through a network, on the policy issue or the subordinate issues. By synthesizing the issues and stakeholders in this way, we can approximate the relative forces impacting the national security innovation as it comes to the policy agenda. Using a subjective analysis of these forces, we can determine the likely direction of a policy decision. The overall goal in this phase is to determine the preponderance of forces pushing for or against a policy. In the absence of overwhelming force in one direction, we seek to identify particularly strong stakeholders and networks, or possible policy entrepreneurs, with potential to swing the support of stakeholders based on a key subordinate issue. In recognizing these swing issues, we then gain an understanding of what it might take to move the policy at a future decision point.

The timing of Reagan's SDI program provides a particularly illustrative example of a policy entrepreneur who developed a network to swing an issue—then deputy national security advisor Robert McFarlane. McFarlane believed that even a weak missile defense system would provide the United States an edge in a nuclear stalemate with the Soviet Union. He garnered the support of Chief of Naval Operations Admiral James Watkins, who then secured the backing of his fellow chiefs of staff. In a critical meeting with President Reagan, McFarlane orchestrated a series of briefings outlining problems in the current deterrent strategy. The President then questioned the chiefs about their position on strategic defense. One by one, they endorsed the general concept of missile defense, even though Defense Secretary Weinberger disagreed with the feasibility of a total nuclear shield. Reagan took the chiefs' endorsement to heart. Although the chiefs left the meeting with the impression that more study and discussion would ensue, McFarlane quickly assembled a team to draft the public announcement of a new strategic vision for a defense-dominant future.²⁴ McFarlane's ability to build a network and gain support for a

key swing issue—the need for a defensive strategy—tipped the balance for SDI as a whole. He was able to increase his individual strength by combining with other power centers and seizing a window of opportunity to successfully advance his position. This example also points out the difficulty in identifying a policy entrepreneur from the outside. McFarlane’s position in the NSC would hardly have given Casper Weinberger pause to consider him a dominant stakeholder.

The SDI example provides an apropos segue as we revisit the case of national missile defense (NMD) in the year 2000. As an application exercise, we will use the Lens Framework in the next chapter to analyze the stakeholders, subordinate issues, and networks surrounding NMD at a decision point for proposed deployment. In this way, we will show the utility and ease with which this framework may be applied.

Chapter 2 Endnotes

¹ Lewis Carroll, *Through the Looking Glass and What Alice Found There* (1863; New York: Peter Pauper Press, 1941). Electronic Text Center, University of Virginia Library 4 Apr. 2000 <

<http://etext.lib.virginia.edu/etcbin/toccer-new?id=CarGlas&tag=public&images=images/modeng&data=/texts/english/modeng/parsed&part=0;>

² Samuel P. Huntington, *The Common Defense: Strategic Programs in National Politics* (New York: Columbia University Press, 1961) 286.

³ Matthew Evangelista, *Innovation and the Arms Race* (Ithaca, NY: Cornell University Press, 1988) 51.

⁴ Clayton M. Christensen and Richard S. Rosenbloom, “Explaining the Attackers Advantage: The Technological Paradigms, Organizational Dynamics, and the Value Network,” *Research Policy* (1995): 233-250.

⁵ The details of the ICBM development are contained in Edmund Beard, *Developing the ICBM: A Study in Bureaucratic Politics* (New York: Columbia University Press, 1976). The attributes associating this program with a national security innovation are original.

⁶ John Kingdon, in a detailed look at how problems reach the national agenda, identified the concept of the policy entrepreneur: an advocate for proposals or for the prominence of an idea “who is willing to invest resources—time, energy, reputation, and sometimes money—in hope of future return.” John W. Kingdon, *Agendas, Alternatives, and Public Policies*, 2nd ed. (New York: Harper Collins, 1995) 122.

⁷ Graham Allison and Phillip Zelikow, *Essence of Decision: Explaining the Cuban Missile Crisis*, 2nd ed. (New York: Longman, 1999).

⁸ Allison and Zelikow 4.

⁹ Roger Hilsman, *The Politics of Policy Making in Defense and Foreign Affairs: Conceptual Models and Bureaucratic Politics*, 3rd ed. (Englewood Cliffs, NJ: Prentice Hall, 1993) 88.

¹⁰ Allison and Zelikow 143-196.

¹¹ Hilsman 85-89.

¹² Hilsman 89.

¹³ Erik K. Pratt, *Selling Strategic Defense: Interests, Ideologies, and the Arms Race* (Boulder, CO: Lynne Rienner, 1990) 4.

¹⁴ Peter B. Evans, Dietrich Rueschmeyer, and Theda Skocpol, eds., *Bringing the State Back In* (Cambridge: Cambridge University Press, 1987) 21.

¹⁵ Hugh Hecl, “Issue Networks and the Executive Establishment,” Anthony King, ed., *The New American Political System*, (Washington, DC: American Enterprise Institute, 1979) 103.

¹⁶ Huntington 287.

¹⁷ Kurt Lewin, *Field Theory in Social Science* (New York: Harper and Row, 1951).

¹⁸ For a good example of bureaucratic momentum as “decision by default” in the dropping of the atomic bomb, see Hilsman 73-74.

¹⁹ Allison and Zelikow 257.

²⁰ Robert S. Dudley, “Battle of the F-22,” *Air Force Magazine* Sept. 1999: 12-13.

²¹ Kingdon 68-70.

²² Hilsman 211.

²³ Kingdon 116.

²⁴ Hedrick Smith, *The Power Game: How Washington Works* (New York: Ballantine, 1988) 594-599.

CHAPTER 3: THE CASE OF NATIONAL MISSILE DEFENSE

“I call upon the scientific community ... those who gave us nuclear weapons, to turn their great talents now to the cause of mankind and world peace – to give us the means of rendering those nuclear weapons impotent and obsolete.” – Ronald Reagan¹

In calling for the Strategic Defense Initiative, Ronald Reagan believed that, after some twenty-eight years of research and development², the concept of a national defense against enemy intercontinental ballistic missiles (ICBMs) was truly an idea whose time had come. Yet, seventeen years later as a new century dawns signaling the sunset of a presidential administration twice removed from Reagan’s own, we are still witness to the continuing struggle to bring such a system to fruition. President Bill Clinton’s own attempt to grapple with the innovation of ballistic missile defense (BMD) will culminate in the second half of 2000 with a decision on whether to deploy a national missile defense (NMD) system. In making this decision, the administration will ponder such questions as: What are the current ICBM threats and enemy capabilities? Is our ballistic missile defense technology feasible against projected enemy systems? Is an NMD system economically viable? What affect will deployment of such a system have on our strategic agreements?³ These questions have been addressed throughout the checkered past of BMD research efforts. However, the previous failures to field a system, particularly in light of the Soviet ability to deploy a limited system in the 1970s⁴, leads us to ask a more fundamental question. For national missile defense, just as for any strategic innovation vying for national resources and energy, the question must be: *Is this an idea whose time has finally come?* The inherent technological challenges, changing organizational structure, and implications for U.S. foreign policy priorities make the deployment decision of a National Missile Defense system an excellent case study for the Lens Framework for national security innovation.

National Missile Defense: Promises and Problems

The complex technical and political challenges surrounding the issue of defending the United States from ballistic missile attack have ebbed and flowed in the national security debate for over thirty years. Solutions ranging from deterrent (offensive) force structures, arms control treaties, and active defense capabilities have held primacy during the various decades based on the interaction of the threat, cost, technology, strategic agreements and other subordinate issues, as well as the influences of a changing cast of national security stakeholders. During that time, deterrence of missile attack based on the concept of mutually assured destruction (MAD) remained the primary line of defense. The United States deployed offensive deterrent forces in the form of intercontinental ballistic missiles, submarine-launched ballistic missiles, and manned strategic bombers. In 1972, the U.S. and Soviet Union signed an agreement banning the creation of an anti-ballistic missile (ABM) system. The treaty allowed a regional defense system consisting of ground-based intercept hardware deployed in two locations: 1) within 150 kilometers of the national capital; and 2) within 150 kilometers surrounding one ICBM field.⁵ In response to this treaty, the Soviet Union deployed one system around Moscow, and the U.S. contemplated a similar system near Grand Forks, North Dakota, but never put such a system into operation.⁶ The treaty effectively banned only what was at the time beyond either nation's technological capabilities—a national missile defense system.⁷

In the 1980's, missile defense technology evolved and President Reagan established the Strategic Defense Initiative (SDI) to examine whether these technological advances now made an effective defense against missiles possible. SDI began exploring an alternative class of space-based lasers, particle beam X-rays, and other speed-of-light weapons that might overcome the traditional barriers associated with ground-based missile defense systems.⁸ Meanwhile, critics argued that SDI either would not work or would destabilize the balance achieved through deterrence. Yet, despite the rhetoric and technology investment, a defensive missile defense system was never deployed and the combination of offensive forces, the Anti-Ballistic Missile Treaty and Strategic Arms Reduction Treaties (START) remained the centerpiece of U.S. missile defense policy. So what has changed in recent decades?

First, the fact that a fairly primitive short-range Iraqi SCUD missile killed more Americans than any other single system during Operation DESERT STORM became part of the

U.S. public psyche. Secondly, the years following dissolution of the Soviet Union gave rise to a series of regional conflicts where small nations were able to garner the interaction and attention of the international community. These actions, combined with various SCUD-class missile firings in North Korea, Iran, Pakistan, and India, engendered concerns regarding the technological capabilities of these nations to employ longer-range ballistic missiles able to reach the United States.

The National Intelligence Estimates (NIE) prepared by the Central Intelligence Agency (CIA) through the early and mid-1990's continued to confer that future threats to the U.S. from the technological capabilities of these "rogue nations" were more than a decade away. In the summer of 1998, Congress established the Rumsfeld Commission to independently assess the threat and to review the process for conducting the National Intelligence Estimates. The Commission was bi-partisan, if not bi-polar, in its make-up; therefore a major shift seemed unlikely. Surprisingly, the Rumsfeld Commission unanimously concluded in its 15 July 1998 report, "...that the ballistic missile threat was broader, more mature and evolving more rapidly than anticipated, and that the United States may have little or no warning of a ballistic missile attack."⁹

On January 20, 1999, Senator Thad Cochran introduced Senate Resolution 257 to the Senate floor, *The Cochran-Inouye National Missile Defense Act of 1999*; the latest in a series of attempts by Congress to pass NMD legislation in the late 1990s.¹⁰ A similar bill, entitled *Declaration of Policy of the United States Concerning National Missiles Defense Deployment* (H.R. 4), was introduced to the House of Representatives on February 4, 1999 by Representative Curt Weldon. The Rumsfeld Commission briefed its findings to a closed session of Congress on March 18, 1999.¹¹ Both chambers immediately passed their version of the bill; by a 97-3 margin in the Senate and a 315-105 margin in the House. In May, the Senate incorporated an amendment to H.R. 4 resulting in final passage of *The National Missile Defense Act of 1999*, which stated,

*"It is the policy of the United States to deploy as soon as technologically possible an effective National Missile Defense System capable of defending the territory of the United States against limited ballistic missile attack (whether accidental, unauthorized or deliberate) with funding subject to the annual authorization of appropriations. It is the policy of the United States to seek continued negotiated reductions in Russian nuclear forces."*¹²

Swift passage was enabled by a sense of urgency from the Rumsfeld Commission findings and general language that reduced the bill to “the lowest common denominator,” overcoming problems of the more detailed provisions in the past. The reference to “continued negotiated reductions in Russian nuclear forces” was a Senate amendment that reflected the Senate’s consideration of its treaty responsibilities. The House adopted the Senate amendment but emphasized during the debate that “there was no explicit or implicit linkage in H.R. 4 between achieving arms control reductions and the commitment to deploy national missile defense.”¹³

In May 1999, pressured by congressional Republicans, President Clinton signed the bill into law and declared his intent to “determine whether to deploy for the first time a limited national missile defense.”¹⁴ However, additional White House talking points clarified that:

“The President has not proposed that any funds be authorized or appropriated in the FY 2000 Defense Department budget for NMD deployment. Whether he requests such funds in FY 2000 (the first fiscal year in which the administration intends to address the deployment question) will depend on the administration’s assessment of the four factors. Which it believes must be taken into account in deciding whether to field this system. (sic):

- 1) Has the threat materialized as quickly as we now expect it will;*
- 2) Has the technology been demonstrated to be operationally effective;*
- 3) Is the system affordable; and*
- 4) What are the implications of going forward with NMD deployment for our objectives with regard to achieving further reductions in strategic nuclear arms under START II and START III?”*¹⁵

In January 1999, the Clinton administration added a \$10.5B funding profile to the Future Years Defense Plan (FYDP) through Fiscal Year 2005 to the Ballistic Missile Defense Office (BMDO). Based on the declared White House priorities, the office of the Secretary of Defense gave program guidance to BMDO to develop, demonstrate and deploy (when directed) a system to defend the United States against a limited strategic ballistic missile threat by a rouge nation. The guidance further emphasized that by 2000, the Clinton administration must be in a position to make a deployment decision based on an assessment of: system technology and operational effectiveness; status of threat; system cost; and national security considerations, including arms control. The guidance also reflected a desire to develop a system consistent with the ABM Treaty, and to phase the program’s key decisions to reduce risks. Based on this guidance, the BMDO and the DoD developed an aggressive program schedule designed to culminate in a

Deployment Readiness Review (DRR) originally scheduled for June of 2000. This DRR, since delayed awaiting a slipped flight test, is to serve as the basis for the DoD assessment to the President in making his deployment decision.¹⁶

Over the years, missile defense concepts have included a variety of space-based, sea-based, and ground-based technology options. However, within the context of the 2000 decision, the NMD system currently under consideration is a ground-based intercept system. It consists of upgraded early warning radars; a new X-band radar in Shemya, Alaska; an in-flight interceptor communications system; a space-based infrared system (Defense Support Program (DSP) satellite and/or Space-Based Infrared Satellite (SBIRS)); a Battle Management Command, Control and Communication (BMC3) system within the Cheyenne Mountain Operations Center in Colorado; and finally, the weapons or “kill vehicles.” The satellites provide launch detection of incoming ICBMs and then provide cueing data for the tracking radar. The radar will then acquire and classify the target and perform a hit/kill assessment. The kill vehicles would launch on a 3-stage booster rocket, perform target discrimination, maneuver to intercept the target via in-flight target updates (from the BMC3 portion of the system), and perform a kinetic kill. This idea of hitting the target in order to kill it has been euphemistically described as “hitting a bullet with a bullet.”¹⁷ Appendix A contains more detail concerning the proposed architecture.

The program schedule for the ground-based intercept program is aggressive and requires key decisions in 2000 in order to accomplish deployment within the current timeline--a timeline that envisions an operational system by 2005. Specifically, the commitment to deployment, site selection and authorization for site construction (specifically contract award) are keyed off this decision point. In order to proceed with the site construction for what would be in essence a *national* missile defense system, and thus a treaty violation, re-negotiation or withdrawal from the ABM Treaty would be required. The ABM Treaty has a clause requiring 6 months notification prior to withdrawal.¹⁸ In other words, the decision to withdraw from the treaty must be made 6 months before the initiation of construction. The tight construction timelines are further exacerbated by the short construction seasons available in the northern regions of the two potential sites (Alaska and North Dakota). Hence, the 2000 decision timeline is driven by both the schedule for NMD deployment and the available time for treaty considerations.

The current debate regarding missile defense has been articulated in Congressional legislation (House Resolutions 4 and 179, and Senate Resolution 257), White House talking points

prepared by the National Security Council, letters from the President of the United States, State Department cables, Defense Department briefings and various private publications/media sources. The wealth of information available regarding this decision makes it easily adaptable to the Lens Framework. In doing so, we can predict whether the 2000 decision to deploy a national missile defense is the right idea at the right time. (Note: The related issues of theater missile defense, alternative space and sea-based options for missile defense and future or follow-on systems will not be discussed. Only the specific 2000 deployment decision is considered in this case study).

Step 1: Identify the Stakeholders

As discussed in Chapter 2, the ability to define the major actors likely to influence a given program is an important initial step, but one that is often overlooked. The goal in this case study is to identify the stakeholders and look through each of their lenses to properly view the entire debate. The first step toward analyzing the predictive case for National Missile Defense then becomes: who are the stakeholders?

NMD is obviously a defense program, so a good starting point might be to look at participants in defense policy and program decision-making. A traditional bureaucratic model analysis would likely start here; but unfortunately it would probably end here as well, a victim of the bias of its own bureaucratic lens. The Lens Framework seeks stakeholders across the spectrum of the political debate, and with them a wide array of perspectives in order to bring a clearer focus to the entire decision process. For this reason, in applying the framework to the case study, we iterated between the three search methods for identifying potential stakeholders as described in chapter 2: open literature, organizational affiliation, and conference attendance.

The unconstrained literature search into libraries, journals, newspapers, articles, speeches, and meeting records concerning ballistic missile defense in general, provided an extensive list of potential stakeholders. Once identified, the sources were culled for a more specific relation to the National Missile Defense decision and specific identification of potential stakeholders. It is important to note at this point that in many cases, the articles referred to details beyond the specific NMD decision to be made in 2000. Yet, since the search purpose was to broadly identify potential stakeholders, the divergence of issue details, (e.g., theater versus national missile defense, technology preferences, fielding locations and constituencies) were overlooked in order to gain an appreciation for who the overall players might be. The stakeholders were

identified based on authorship, quotation as an expert within a published piece, or reference to an individual's potential involvement in the decision process. This method allowed a first-cut list of individuals and organizations, which were then grouped by category and researched in more depth using interview techniques. In one case, the open-source search unearthed a diagram of potential missile defense stakeholders from earlier years, which served as an excellent comparative listing.¹⁹

Despite the efforts to keep this approach clean or untargeted, we concluded that missile defense publishing tended to follow on the heels of major events. In the NMD case, success or failure of missile tests, foreign or domestic press conferences, or congressional hearings were followed by a wealth of articles.²⁰ Although the case study attempted to incorporate an unbiased research approach, an overwhelming majority of the news and journal articles were written by or quoted only those within the traditional defense establishment. Additionally, defense-centric publications, congressional journals, and newspapers within the Washington, DC area published the preponderance of articles. This led to the conclusion that casting a wide net or working an unconstrained search is really a misnomer. Those formally working on the details of an innovation program generally produce the most information—it is therefore important to remember that number of attributed articles is not necessarily an indication of strength. In other words, those that published the most are not necessarily the strongest stakeholders; and practitioners should continue to look for the “strong but silent types.”

A more structured search for organizational participants specifically explored the five broad categories of stakeholders identified in Chapter 2, *Policy-Making; Institutional; Opinion-making; Business/Technical, and External*. Traditional defense players in each category were thus targeted to assess the scope of their involvement.

In the investigation of organizations or individuals chosen to participate in special conferences or study groups, the study incorporated and compared participation on a number of panels, study groups, and conferences. These included members of the National Missile Defense Review Panel (the Welch Panel) and the Rumsfeld Commission, as well as attendees at conferences at Harvard, Stanford, the Claremont Institute, and the Heritage Foundation. These conferences yielded special insight as to the networks that formed around particular subordinate issues, and provided information toward compiling a “Who’s Who in NMD.” Surprisingly,

some of the most respected experts attending these gatherings had published very little, but wielded great influence within their circle.

With these mechanics of stakeholder identification as a background, the details of NMD case study findings follow. For ease of presentation, the resulting stakeholder identification, general observations on the peculiarities of each category, and examples of strength identification are provided for each stakeholder category.

Policy-Making

Mr. Speaker, last week the President signed H.R. 4, the National Missile Defense Act of 1999, into law. This measure unequivocally states that it is the policy of the United States to deploy a national missile defense system as soon as it is technologically feasible. In signing the bill, the President has at long last acknowledged that the missile threat that he has so long denied, and the need to defend against it. – Rep. Curt Weldon (R-PA)²¹

The case study for National Missile Defense identified the White House and Congress as the two major political stakeholders. There are several general observations regarding the political category of stakeholders. Political stakeholders see themselves as both policy-makers and policy-influencers that can exert their power, both formally and informally, on NMD. It is easy to identify the formal process because, in most instances, the roles of the President and Congress are defined and governed by the constitution, statutes and laws. The more difficult stakeholder to identify is the informal stakeholder whose identity and impact are not as defined or visible. Both the White House and the Congress contain numerous sub-stakeholders within their bureaucracies.

The decision to proceed with the deployment of a National Missile Defense rests solely with the President of the United States. However, various stakeholders will strongly influence his decision. Listed below are the stakeholders in the policy-making category and a brief description of their involvement:

- **The President:** The ultimate decision-maker, with a checkered past in terms of support for NMD. President Clinton's priorities primarily lie in domestic issues, and only recently has he engaged in the NMD debate. He has been forced to play in the NMD decision because Congress passed the NMD Act in 1999. The President stated that he plans to make a decision regarding the NMD deployment sometime in 2000.

- **The National Security Council Staff:** Provides talking points to the President, the Administration, and Congress regarding NMD. It crafts the White House Policy position for NMD and controls Interagency Working Group (IWG) agendas, effectively controlling the institutional dialogue regarding NMD. Although the position of the NSC staff is difficult to discern separate from the President's, it appears to focus primarily on strategic concerns. Thus, treaty implications and international reactions play a role in the NSC staff position.
- **CIA/DIA/Intelligence Agencies:** Briefed the President, Congress, DoD, and the State Department on the current and future threats, primarily focusing on rogue nations through 2015. The National Intelligence Estimates (NIE) and the Rumsfeld report are the primary intelligence references at the heart of the debate. The intelligence agencies may be trying to reestablish credibility following the stark differences in threat projections between the earlier NIEs and the Rumsfeld report.
- **2000 Presidential Candidates:** Both Governor Bush and Vice President Gore have indicated that they support a NMD concept; however they have focused primarily on domestic issues and have chosen not to engage the issue during the election primaries.
- **Congress:**
 - **Senate & House Armed Services Committees:** These congressional committees are composed of individual and group stakeholders that drafted the NMD Act of 1999. Some stakeholders (primarily Republicans) support NMD as one of the highest priorities of the committee while others (primarily Democrats) see it as one of many defense issues, below personnel, retention, and readiness.
 - **House Military Research and Development Committee:** A subcommittee of the Armed Services Committee that held hearings and drafted the initial legislation for the NMD Act. Congressman Curt Weldon, a strong proponent of NMD, chairs this subcommittee. The committee has several individual and group stakeholders that can influence or drive policy regarding NMD deployment.
 - **Senate Emerging Threats and Capabilities Committee:** The committee that appointed the Rumsfeld Commission and heard the intelligence estimate for adversaries and rogue nations. The appointment of this Commission marked one of the first times the committee has not relied solely on the National Intelligence Estimate done annually by the CIA.

- **Senate Foreign Relations Committee:** This committee approves all treaties and is responsible for reviewing any changes to the ABM Treaty that will have to occur to deploy an NMD system. This treaty responsibility gives the Senate committee greater influence than its House counterpart.
- **House International Relations Committee:** This committee has the ability to impact the deployment of a NMD, as it affects our relationships overseas. Despite the strategic concerns inherent in NMD, this committee has not been very active in the issue.
- **Senate and House Appropriations Committees:** These committees have prioritized and appropriated funds for National Missile Defense. These committees do not appear to have specific proponents or opponents of NMD; their focus has strictly been on funding thus far.
- **Rumsfeld Commission:** Congress appointed this bipartisan commission of senior policy-makers that assessed the current and future threat of rogue nations as imminent. The threat report is the basis for Congress passing the NMD Act. The Commission has completed its charter and presented its report to Congress. Although it is no longer actively involved in the process, its recommendations still impact the issue. Furthermore, individual members and those who supported the commission are frequently called to testify as experts on the threat or are asked to participate in conferences and working groups on NMD.
- **Senator Thad Cochran:** Sponsor of the NMD Bill in the Senate and chairman of the Senate Subcommittee on International Security, Proliferation, and Federal Services. His continued involvement in the NMD issue yields him great influence.
- **Congressman Curt Weldon:** A strong proponent and sponsor of the NMD Bill in the House of Representatives. Additionally, he serves as the subcommittee chairman of the House Research and Development Committee. This committee held hearings and drafted the NMD Act of 1999. Congressman Weldon garnered bipartisan support in the House to pass the bill. His continued involvement in the NMD issue yields him great influence.

Hedrick Smith, in his book *The Power Game*, states that we Americans are a nation of game players that are preoccupied with winning or losing ... whether it is the Friday night poker game, bingo, the nuclear arms race, or the space race.²² In Washington DC, the analogy is no

different when you get inside the “beltway”, our center of political power, and consider how it applies to NMD.

The President signed the National Missile Defense Act overwhelmingly passed by a bipartisan Congress. He did not appear to initially support the NMD deployment, but Congress forced the President to respond by holding hearings and drafting generic legislation that did not specifically address which type of NMD system to deploy. The bill gained bipartisan support from both the House and Senate. Congress passed the National Missile Defense Act of 1999, making it official U.S. policy to deploy a national missile defense system as soon as technologically possible and sent it to the President for signature.

We have talked about political stakeholders as a group, but determining the individual political stakeholder is also a difficult task. Individual members of Congress may also claim a stake, and can wield power in a variety of ways. It is not always apparent why the political stakeholder is tied to an issue or easy to predict his or her involvement. It is easy to see why Senator Ted Stevens is involved in the specifics of NMD because it may be deployed in his home state of Alaska and therefore directly affects his constituency. On the other hand, it is not as apparent why Congressman Curt Weldon is an individual political stakeholder so passionate about NMD. He represents a district where the NMD issue has no impact on his constituency other than from a national security perspective and statewide association with Pennsylvania Guardsmen killed during a Scud attack in Desert Storm. His vehemence on the NMD issue could represent strong personal beliefs, core interest in defense or future goals.

It is overwhelmingly apparent that the policy committees and subcommittees, such as Armed Services and Research and Development, drove the direction of NMD and the Appropriation Committees determined the priority of funding. In interviews, the legislative stakeholders consistently downplayed the strength of the President by saying Congress has the ability to drive the debate and exercise the upper hand by making law and executing oversight of the program.

It was dramatically evident that while these very strong political stakeholders have driven the President toward a decision on deployment, their own commitment to a specific date was extremely low. Key proponents in both parties were quoted as either supporting a delay or being unconcerned with the deployment timing. Rep Ellen O. Tauscher (D-CA), House Armed Services Committee, said she fully supported the program but, would announce that Congress

"should not push the president or push ourselves into the deployment decision until the new administration is in." Senate Foreign Relations Committee Republicans Gordon H. Smith (R-OR) and Chuck Hagel (R-NE) said in January 2000 that they would prefer a delay. Rep John M. Spratt Jr. (D-SC) said that, "It's more of a feasible design review decision rather than a deployment decision." Even the most ardent proponent, Military Research and Development Subcommittee Chairman Curt Weldon (R-PA) was unconcerned if the deployment decision or the 2005 deployment date was delayed saying , "The 2005 date may slip," ... "I don't care."²³

The congressional staff is a key player or stakeholder that cannot be overlooked as an instrument of political power. The strength of the staffer in some instances is directly tied to the political clout of the member or committee. The staff is responsible for putting the panel together to testify before the committee or subcommittee and can influence the spin, or framing, of the testimony. Thus the staff ultimately controls what Congress sees and hears.

Finally, the decision to deploy NMD will be made in an election year. The timing relationship was raised during interviews, but did not emerge as an integral part of the decision to deploy a NMD during the case study research. Governor Bush and Vice President Gore both support deployment of a NMD but have focused their campaign on domestic issues such as health care, education and school vouchers. Neither candidate broached the subject during televised debates. If NMD does become an election issue, it may be the basis to defer the decision to the next administration.

Institutional

The case study for National Missile Defense identified two primary institutional players, the Department of Defense (DoD) and State Department. The case study illuminated several general observations regarding the institutional category as stakeholders. This category was fairly easy to dissect since the responsibility for policy, technology, funding or operating a missile defense system was either well defined or openly debated.²⁴ Unfortunately, these bureaucracies rarely highlighted the staff members who advise those with decision-making responsibility within the institution. Therefore, while some insight to institutional positions can be obtained via Internet or document research, direct contact with the sub-organizations is recommended whenever possible. While not so with the other categories, within the institutional category we concur with Kingdon's assessment that research requires telephone or personal

interviews to elicit stakeholder position and sub-issue concerns.²⁵ The institutional players also prefer to see themselves as information providers rather than policy-influencers; however a natural advocacy occurs based on high levels of perceived responsibility for, or ownership of, the NMD program. Further, stakeholders within this category demonstrated a proclivity to avoid any apparent opposition with regard to innovation programs, and specifically to NMD, and employed an indirect opposition or silence rather than direct negative statements. For this reason, silence or “damning with faint praise” was treated as a *negative* force during the synthesis step in the framework.

The participation of sub-organizational levels and the assessment of stakeholder strength varied significantly between different institutional stakeholders. For the DoD, there was extensive sub-organizational division of responsibility, and these organizations varied significantly in their position on NMD and the sub-issues surrounding the deployment decision. The variance in specific responsibility within this institution (acquisition, technology development, operations, fiscal management, etc.) tended to drive a subordinate issue position rather than an NMD position.²⁶ There was high potential for disparity at the subordinate issue level, even when the institutional leader, Secretary of Defense William Cohen, supported NMD. For this reason, the institutional players for DoD were identified at the sub-organizational level whenever possible and their subordinate issue association was individually characterized in the network analysis portion of the framework. The DoD organizations involved in the NMD decision and a brief description are provided below:

- **SECDEF:** As a cabinet member, Secretary William Cohen outwardly supports the administration’s position on NMD. However, as the leader of the DoD institution, he must represent varying levels of support at the subordinate issue level based on concerns within the organization. Thus far, this dichotomy has not conflicted with his support for the administration’s views.
- **CJCS:** Chairman of the Joint Chiefs of Staff, General Hugh Shelton, has a statutory responsibility to represent the Joint (Service) Chiefs’ military assessment to the President and could therefore represent an independent position. In the NMD discussions to date, the SECDEF and CJCS positions have been consistent.
- **BMDO and JPO:** The Ballistic Missile Defense Office was created under the Reagan administration and is responsible for the research, development and acquisition of various

missile defense capabilities. The organization is independent of the military services' organization, acquisition and planning structures and receives direct funding from congress. The Joint Program Office (JPO) is specifically responsible for the NMD program but was organizationally indistinguishable; therefore, BMDO/JPO are considered as a single stakeholder.

- **OSD agencies:** Agencies within the Office of the Secretary of Defense which have a specific responsibility and voice regarding NMD:
 - **OSD (P):** The OSD Policy position is related to foreign interests as well as defense policy and treaty implications of deploying NMD. The OSD Policy position is strengthened by the personal force of Undersecretary of Defense for Policy Walt Slocombe, who has personally authored several articles regarding the policy considerations and problems in deploying NMD.
 - **OSD (A&T):** In contrast, the strength of the OSD Acquisition and Technology Office lies not in and historical organizational prestige or dynamic leadership. A&T was designated responsibility for providing the Deployment Readiness Review (DRR) on NMD prior to the Presidential deployment decision. According to various stakeholder interviews, the DRR represents A&T's position and strength as a stakeholder, and the SECDEF is expected to present the DRR to the administration. Despite responsibility for the DRR, leadership in this organization demonstrates little involvement or strength in the debate.
- **Service Branches:** Each of the services tend to hold a different position or level of support for NMD:
 - **The Army** was designated as "lead service" for NMD by a Joint Requirements Oversight Council (JROC) decision in 1999; however, budget constraints and a major re-structuring of the army writ large during this timeframe keep NMD at a low priority level.
 - **Space and Missile Defense Command (SMDC):** This Army organization was recently designated to assume the Army's responsibility as lead service for NMD deployment. Because this charter is new, it was therefore not considered a stakeholder at this decision point.
 - **The Air Force**, and particularly its space component, Air Force Space Command (AFSPC), is focused on the long-range vision of a space-based NMD system. At this

decision point, support for NMD is evident only as it relates to fiscal relationships to programs under the Air Force's purview; for example, the space surveillance radar upgrades and the Space-based Infrared System that are also required to support NMD.

- **The Navy** has a similar long-range vision, only that of sea-based missile defense. Support for NMD related to programs currently referred to under the umbrella of Theater Missile Defense. Navy involvement increased during the course of this research, and BMDO leadership's efforts to reestablish this service's support was evident in program adjustment and congressional testimony regarding sea-based ballistic missile defense programs.²⁷
- **The Marine Corps**, identified primarily by speeches by the Marine Corps Commandant Gen Jones, has been generally supportive but did not appear to have an independent NMD-related position.
- **Operational users:** In any major DoD program, the operational or deployed organizations of the military, usually associated with regional Commanders-in-Chief, or CINCs, have a voice in priorities and deployment of new systems. In the case of NMD, the operational users are represented by USSPACECOM. At future decision points these users may be represented by SMDC.
 - **USSPACECOM:** United States Space Command (USSPACECOM) is composed of Army, Air Force and Navy space commands and would be responsible for the operation of the Battle Management, Command, Control and Communications (BMC3) of NMD, as well as integrating NMD into the existing command and control architecture.
 - **NORAD and AAC:** North American Aerospace Defense Command (NORAD) is a combined U.S. and Canadian organization formed to provide warning and defense of the North American continent. Alaskan Air Command (AAC) is an Air Force organization supporting NORAD. Both organizations will likely be responsible for integrating portions of the NMD system into their current organizations and then operating the system. For purposes of the case study we concluded that AAC was represented within the NORAD position.
 - **National Guard:** Alaskan National Guard may provide operators for the system; however, since the system is still under development there was no independent position on NMD.

- **Corps of Engineers:** Army Corps of Engineers would be involved in construction of the NMD site. Interviews indicate this organization might address construction timelines or problems but the NMD schedule overall is represented by BMDO.
- **Labs** (see Business/Technical category)

In assessing the strength of these various stakeholders we return to the criteria presented in Chapter 2 and will discuss our assessment of BMDO strength as a framework example. BMDO's position in the policy process is fairly weak, since they function primarily as an advisor or in providing testimony to those in policy decision-making positions. They do hold the keys to detailed programmatic and technical information, which causes policy-makers to seek their assessment as they consider the decision to proceed with NMD. They have no direct constitutional, statutory, or legal authority. The past performance of BMDO as a stakeholder has been relatively high; access to and control of funding independent of service budgets raises their influence across the DOD as well as the aerospace defense community. Additionally, the support provided by congress for NMD has increased BMDO strength and given the Directors of BMDO, currently Lt Gen Ron Kadish, direct access in congressional testimony as well as other meetings and policy discussions. BMDO reputation is good, however test failures and a legacy of research rather than program development could diminish their strength with regard to readiness assessments on actual deployment of an NMD system. This stakeholder's level of effort, based on speeches, writing, and amount of activity in the policy area is the highest within DoD. While not intentionally, BMDO is to a large extent, the bureaucratic NMD advocate. Their support base in terms of constituency, interests, or number of organizations is somewhat varied; congressional support has been strong, although service support is moderate and remains dependent on BMDO's continuation of follow-on development of sea and space-based architectures. The BMDO Headquarters in Washington, DC provides excellent access and accessibility to other stakeholders as well as an ability to influence those stakeholders. There are no major external influences, conflicts of interests, or legal prohibitions that diminish BMDO strength as a stakeholder. As a relative priority, this stakeholder places NMD deployment at the top of its priority list. While not in a position to make policy decisions, BMDO has an extremely high relative strength.

The State Department, as an institution, had the least dilution of organizational involvement or participation on the NMD issue. In researching the State Department, through both diplomatic web sites and published material,²⁸ there is no obvious sub-organizational office that has responsibility or acted as a spokesman for the State position. Secretary of State Madeline Albright or Undersecretary of State Strobe Talbott personally presented the stakeholder position. Those presentations were notably infrequent and focused narrowly on factual recounts of the Administrations' plans;²⁹ although they did identify Russia as "the key to managing the diplomacy of NMD deployment."³⁰ It is entirely possible that State Department positions are articulated during formal Interagency Working Group meetings; however, as discussed in Chapter 2, the position or lens presented in these meetings may not be available at the staff level. In press articles where a State Dept comment or position might be expected, the media often substituted foreign or think tank commentary to fill the void. For example, several articles highlighted Strobe Talbott's high-level meetings with the Russians and problems with treaty negotiations. Yet, in the absence of official State Department commentary on the missile defense related meetings, the New York Times quoted the director of the US-Canada Institute, Sergei Rogov; Massachusetts Institute of Technology professor, Theodore Postol³¹; Russian Foreign Ministry spokesman, Vladimir Rakhmanin; and Col. Gen Valery Manilov, first deputy chief of the Russian General Staff³². For these reasons, we identified the stakeholders for this institution as individuals, recognizing that functionally these individuals operated in the same manner as an organization to carry the institutional position:

- **Strobe Talbott:** Undersecretary of State and U.S. government representative for Russian interface regarding NMD and treaty issues. He was often represented by John Holum, Senior Advisor for Arms Control and International Security.
- **Madeline Albright:** Secretary of State, whose comments to date have represented articulation of the Administration position, although embassy cables clearly stated that despite congressional resolutions the decision had not been made to deploy an NMD system.³³
- **Ambassadors:** No discernable position on NMD, although there was some indication of activity late in the research period.³⁴
- **Country Desks:** No discernable position on NMD.

In interviews, one of the most surprising revelations is that the State Department is perceived by other stakeholders as relatively dormant in the decision to deploy a national missile defense. This is particularly interesting in light of the ABM Treaty implications and the impact on Russia, North Korea, China, and U.S. allies. Normally, the Secretary of State is in the center of national security policy and is responsible for developing a policy coalition. Although Secretary Albright and Deputy Secretary Talbott were mentioned during interviews in regard to ABM treaty modification, the State Department as a whole was consistently omitted by policy-making, institutional, and opinion-making stakeholders when asked to identify active NMD stakeholders.

Opinion-Making

In turning to examine the opinion-making category, the practitioner moves further away from the direct policy-makers to a group of individuals that has the expertise, connections, or sufficient reputation to influence policy-makers. The long history of the anti-ballistic missile controversy has led to a plethora of experts, former officials, academics, and journalists with rich backgrounds on NMD-related issues. This category differs significantly from the policy-making, institutional, and business stakeholders in both the nature of their products and the forums for expression that allow these experts to form a link with other stakeholder groups regarding the national security innovation or its sub-issues.

Who were the opinion-makers for NMD? Foundations, institutes, interest groups and universities have sponsored and conducted a vast amount of research in the area of missile defense. Although these groups are fundamentally different in how they become involved in an issue, they serve many of the same roles in the policy process: researchers, advocates, information providers, and conference sponsors. In conducting NMD research, interviewees identified a large number of influential opinion-makers as well as number of highly vocal but non-influential groups. Despite a large number of potential experts on missile defense, its threat, technical and strategic sub-issues, the same organizations and names were consistently identified.³⁵ Examples are provided below:

- **RAND Corporation:** (Jeff Isaacson and Michael Swaine)
- **Center for Strategic and International Studies (CSIS):** (Dan Gouré)
- **Brookings Institution:** (Michael O’Hanlon, John Steinbruner)
- **Institute for Defense Analyses:** (Brad Roberts)
- **Washington Institute for Near East Policy:** (Patrick Clawson)

- **National Defense University:** (Steve Cambone)
- **Massachusetts Institute of Technology (MIT):** (Thomas Christensen, Ted Postol)
- **Stanford University:** (Dean Wilkening, David Holloway, Coit Blacker)
- **Harvard University:** (Josef Joffe, Alastair Iain Johnston, John Reppert, Graham Allison)
- **Georgetown University:** (Victor Cha)
- **Council on Foreign Relations:** (Michael Jonathan Green)
- **Heritage Foundation**
- **Federation of American Scientists:** (John Pike)
- **Lawyers Alliance for World Security:** (John Rhinelander)
- **High Frontier:** (Henry Cooper)
- **Carnegie Endowment for International Peace:** (Joseph Cirincione)
- **Union of Concerned Scientists:** (Lisbeth Gronlund, David Wright)

In the case study for National Missile Defense opinion-makers also included a large number of former officials and the media. The most influential of the opinion-makers appeared to be a group of former government officials who now reside in academia and in consulting positions. Many were in decision-making positions in previous phases of missile defense development and had directly shaped the program to this point. The access these individuals have to current decision-makers, coupled with a rich background in the history of NMD, seemed to provide a source of strength unparalleled outside the innermost rings of power. Former officials publishing or participating in conferences or working groups on NMD included such notables as: Henry Kissinger, former Secretary of State; Brent Scowcroft, former National Security Advisor to the Bush administration; Sam Nunn, former Chairman of the Senate Armed Services Committee; Gen Larry Welch, former Air Force Chief of Staff;³⁶ Richard Garwin, former science advisor to Reagan and an architect of the SDI approach; John Deutch, former Director of the Central Intelligence Agency; John White, former Deputy Secretary of Defense; William Perry, former Secretary of Defense; Harold Brown, former Secretary of Defense; as well as many other national security experts.

The media members of the opinion-makers category were fairly easy to identify and search via LEXUS-NEXUS and other news and journal publication services. The media clearly followed an event driven approach to NMD, with publishing (in both news and opinion sections of the publications) immediately preceding or following test events and U.S. or foreign political

announcements.³⁷ Some of the writers were well versed or focused on military or technical issues: a good example would be Dave Fulghum, senior military editor of Aviation Week and Space Technology. Yet, the expertise to actually make or form opinions was not prevalent within the media itself. The media used technical, strategic, or foreign policy experts' statements to support assessments on missile defense. For this reason, the media seemed to play more of an amplification role than an influencing one. The media did not hold the inherent expertise to make opinion, but largely amplified the sub-issues in the national missile defense debate and determined the timing for what was most universally published by the opinion-making category. They were amplifiers in every stakeholder category, and in many cases across the categories. Therefore, the Lens Framework synthesis step was adjusted to account for this finding.

Finally, as an adjunct to this category of stakeholders, the American public was considered. As a secondary target of many opinion-makers, the public has a large capacity to influence decision-makers if galvanized on an issue. However, because NMD had not risen above the noise level as a national issue, the public remained largely in the dark on specific subordinate issues. The relative ignorance of the public on the subject of NMD was so pervasive that many believed the U.S. already possessed such a capability. In the relatively few opinion polls, the public favored deployment of national missile defense as a concept, but with no context in regard to the details.³⁸ In an election year with no particular champion, national missile defense did not appear to be a top ten issue for the American public at large.

Now that we have identified the primary opinion-makers we must ask: How did these experts effect the NMD debate? The organizations and individuals in the opinion-making category added significantly to the body of information and analysis concerning missile defense. However, their strength or ability to influence policy was dependent on three unique aspects: the fact that their products had mass appeal; the variety of forums in which opinion-makers participated; and their access to decision-makers.

Stakeholders in other categories produced briefings, records of debate (e.g. congressional records), policy letters, formal public affairs releases and other materials that required active presentation by the participants and usually a strong understanding of the NMD program itself by the information recipient. For example, a BMDO briefing provided detailed diagrams of the NMD ground-based intercept system, yet to understand it required an expert briefer from the program office and its defense contractors; or alternately, a detailed understanding of NMD and

its space, ground radar, communications, and command and control subsystems.³⁹ These products are geared to and appropriate for informed participants or insiders on missile defense programs. On the other hand, opinion-makers produced articles, reports or commentary that were more conversational critiques of specific sub-issues, the general nature of the NMD program, or potential international effects of NMD deployment. An example was inherent in the works produced by Dean Wilkening, the Director of the Science Program at the Center for International Security and Cooperation (CISAC) at Stanford University.⁴⁰ His articles responded to the questions of: “How much ballistic missile defense is enough?” “How much ballistic defense is too much?” and “What are the treaty implications?”⁴¹ Each provided a concise snapshot of these sub-issues and offered insight to readers who were uninitiated in the history, technical aspects or policy debate of NMD. This difference in type of product and its target audience demonstrated that the opinion-makers lens is focused to outsiders: people less familiar or formally involved, yet potential crucial in the networking or decision-making on the NMD program. Additionally, because opinion-makers provided documented (print or video) end-to-end discussions on sub-issues, the uninitiated recipient could absorb both the information and the authors’ position without any interpretive presence. This made a longer-term impact and also allowed a somewhat exponential growth in audience as the information was read and then networked to other stakeholders via Internet or journals. As interest in the NMD debate has grown, the reputation and contacts of the opinion-makers’ or experts’ sponsoring organizations has also increased the audience for NMD-related issues.

This general appeal and the resulting “network” associations provided this stakeholder category a greater number and variety of forums for interaction and debate. One forum was via media publication of opinion-makers’ articles or commentary. As discussed above, although there were many examples of columnists with some knowledge on NMD, (e.g. Bill Gertz of the Washington Times, Bradley Graham of the Washington Post, and Michael Gordon of the New York Times), most of their articles relied on quotation from stakeholder groups, particularly the opinion-making category. An example would be Bradley Graham’s article following an NMD test, which quoted opinion-makers from the Brookings Institution and the Federation of American Scientists.⁴² The media also provided a forum for direct publication of these experts’ views in opinion pieces, or op-eds.

Another forum grows from within this stakeholder category. An opinion-maker's work can come to the attention of other opinion-makers interested in the sub-issue and begin to reach a larger audience; often an audience that directly influences decision-making. Returning to a previous example, Dr. Wilkening's work was produced in academic circles and was relatively unknown by NMD experts in other categories. Yet over the last year, interviews indicated that his research was being discussed by working groups, conferences, institutes and among former defense officials as they raised their interest level on the NMD debate. His work was passed around within the opinion-making category and then began to channel to other groups, in one case a House of Representatives staff member referred to his work in discussing methods for finding expert witnesses for congressional hearings.

Because of the varied and interactive nature of the forums opinion-makers may use, this group also became an excellent place to look for burgeoning NMD networks, where insiders and outsiders came together in a number of conferences looking at all phases of missile defense. The strengths of these stakeholders, in other words their ability to influence the policy decision, ranges widely depending upon the amount of direct access they may have to the actual decision-makers. These stakeholders must vie for the attention of policy-makers and the public at large, and thus they provide a rich source of information concerning the issues and topics of this debate as well as tremendous insight to the networks surrounding NMD sub-issues.

Both the divergence of sponsor-group affiliation and the competitive atmosphere among academics and experts led to strong differences of opinion regarding NMD issues. Yet, as a category, they focused almost exclusively on problems or provided expert commentary on required changes needed before deploying NMD. For this reason, the opinion-makers were characterized as either a divided force (at best) or negative force on the sub-issues during the framework synthesis.

Business/Technical

“Using our core competency of large scale systems integration across the wide range of our many individual missile defense programs and bringing our projects to completion in a cost-effective manner, we will be well-positioned for future missile defense work and will enhance our reputation. Foremost, Boeing people will take justifiable pride, not only in keeping America safe from missile attack, but also in taking a long step toward a safer world.”

- Phil Condit, CEO, The Boeing Company⁴³

The business and technical category is unique and unlike any other category that we have framed during this analysis. These stakeholders are often quiet behind the scenes operators who recognize that funding will not flow if all stakeholders are not taken care of in the near term. Unlike any other category of stakeholders, the business and technical stakeholders view all other stakeholders equally as both a customer and a stakeholder. This view shapes how these stakeholders interact with other stakeholders in the NMD debate. The business and technical stakeholders are not concerned with the merits of the NMD program or whether it is a good or bad program. Instead, they look for consistency in the program because it is a tool of measurement for survival within their industry. The most important factor is for the program to receive consistent support and funding. Consistent support and funding of NMD ensures that the business and technical stakeholders keep their top people committed to shaping and developing the program. If there is a perception that the program is running into problems, good people tend to migrate from the program.

At stake in the NMD debate are the large fiscal and intellectual resources necessary to make the deployment a reality, and a profit for the company. The business and technical stakeholders believe that NMD is a robust program that is not tied to the President's decision in 2000. They share a common belief that the NMD program is going to continue regardless of whether it is in place by 2005 as proposed. An example that supports their belief is the 1991 Missile Defense Act passed by Congress that called for a NMD to be in place by 1996.

The lens from which these stakeholder views the NMD debate encompasses and crosses multiple categories. The diversity of their customers require the business and technical stakeholders to fully understand these customers, whether that mean being well versed in the politics of Capitol Hill or complex technical issues. Normally, the business and technical stakeholders hire consultants such as former members of Congress or officials who have held senior positions in government. These consultants normally have a broad-based knowledge of

NMD, possess a balanced view of the issue and are highly respected by other stakeholders or customers. The business stakeholders believe that these consultants are the best and most effective means to provide information and to influence or shape the debate. Consultants “carry the mail” for the business and technical stakeholders to other stakeholders or customers. The consultant may then form alliances or networks of friends to help monitor or influence the debate.

The business and technical stakeholders in today’s environment are players in the NMD issue because it is a serious program with long term funding possibilities. They commit monetary and intellectual resources to independent research and development prior to congressional funding. Because the business or technical stakeholders are involved in the development of the program prior to competing for the contract, they can shape the direction the program proceeds in and build a pursuit team to track it. Once the pursuit team tracks and wins the contract, the challenge becomes how to keep the program sold and funded.

The business and technical stakeholders continue to believe that the NMD technology is mature and the ability to integrate radars and space-based assets is at hand. The major concern for them is the aggressive timeline for deployment and the success-oriented schedule defined by the DRR.

The scope of the national missile defense effort is such that it is spread among several large contractors with a promise of economic benefit in many key locations. The primary defense players are:

- **Boeing-LSI:** As the lead systems integrator, Boeing has the position of coordinating the activities of the other contractors
- **Lockheed-Martin:** Responsible for the development of the Space-Based Infrared System High component satellites (SBIRS-High) that will provide early warning for NMD.
- **Raytheon:** Primarily responsible for the success of the kill vehicle, Raytheon has suffered numerous financial setbacks and technical glitches. Raytheon is heavily dependent upon the success of the missile defense concept to regain its credibility.

Some of those interviewed felt that defense contractors not directly involved in the NMD development nonetheless have a stake, in that NMD may siphon available resources away from their own programs. Although this may be the case, we cannot find any evidence of collusion

among those outside contractors to defeat the program. Similarly, one interviewee felt that the commercial space industry has a stake in the defeat of NMD so as to avoid conflict in the free access of space. This, too, proved to be an opinion with little evidence to support it.

Charged with solving the technical challenges, the national laboratories seek to provide an independent look at the technical risks associated with the NMD program. When interviewed, representatives viewed their organizations as analysts who provided unbiased information. Through their lens, these scientists and technical experts “call them as they see them,” with no advocacy role. The reality is, however, that these organizations have a large stake in the continued research and development of the missile defense concept. Their advocacy may be understated, but in our view it does exist. Information provided by these organizations may be used by others to shape policy in a particular direction. Recent allegations that tests have been “rigged” are probably overstated, but reflect the laboratories bias toward ensuring success. During the conduct of NMD research, although not inclusive, we identified some of the technical laboratories that have been or are involved in assessing the technical risks associated with the NMD program. These primary stakeholders include: MIT/Lincoln Laboratories, Sandia National Laboratories, and the Air Force Research Laboratory (AFRL).

External

“An attempt to withdraw from the 1972 ABM treaty would destroy the entire system of treaties dealing with the restriction and reduction of weapons of mass destruction. All these agreements can be implemented only as a single whole...there can be no compromise on this issue.” - Col. Gen Valery Manilov, First Deputy Chief, Russian General Staff ⁴⁴

The external stakeholder category consists of those foreign interests affected by a United States decision to deploy a national missile defense system either unilaterally, or as part of negotiated treaty arrangements. While the lens is significantly different for each foreign power, there are some general observations that remain consistent across the entire category. First, the foreign nations focus their debate and commentary on subordinate issues such as strategic relationships, perception of U.S. unilateral actions, arms control, and treaties rather than the central issue of National Missile Defense deployment or specific NMD systems. For this reason, the external stakeholder category seems to align solely with the strategic issue category described later in this case study.

Additionally, whether a result of language barriers or diplomatic sensitivity, the positions taken by the individual countries are often voiced indirectly through regional experts from the U.S. This makes the external group more difficult to assess and forces an interpretive reliance on other stakeholders, particularly those in the opinion-making category. Regional experts at universities and research centers proved to be an excellent resource in providing the interface and interpretations. For example, experts at the Belfer Center for Science and International Affairs (BCSIA) at Harvard University and the Center for International Security and Cooperation (CISAC) at Stanford provided tremendous insight on specific international perceptions through their contacts.⁴⁵ It is also interesting that, in the case of NMD, many allied nations chose to engage in the issue bilaterally through media, foreign policy discussions or in conferences rather than strictly under a formal NATO⁴⁶ or United Nations rubric.⁴⁷

The external stakeholders were consistent in expressing either direct opposition or concerns with the deployment of an NMD system. Specifically, we identified primary external stakeholders as:

- **Russia:** Bilateral US/Soviet agreements with 1972 ABM treaty drive strong negative rhetoric from Russia on NMD deployment. Russian concerns include potential for NMD program expansion once initial deployment is achieved, frustrations in Russia's inability to compete or participate in requisite technology growth due to economic constraints, and causal implications of regional Russian security which are impacted by potential Chinese response to a U.S. NMD capability.

Interestingly, U.S. DoD and State Department activities focus either on convincing the Russians that NMD does not negate their strategic deterrence capability or in trying to persuade Russian support through technology or system sharing. An example occurred in April 2000, when DoD officials briefed the Russian foreign minister, Igor S. Ivanov, and other Russian political and military leaders that Russia's nuclear arsenal could overwhelm new radar technology at the heart of the NMD system. Furthermore, the briefing indicated that technical limits to the new radar system would not let the United States simply add more interceptor missiles than those already proposed. The same briefing also discussed a series of incentives the United States was prepared to offer Russia to assuage fears about the proposed defensive system. These included allowing access to the

system's radar facilities, helping Russia build an early-warning radar system in Siberia and rebuilding its faltering satellite network for monitoring missile launches.⁴⁸

While the ABM treaty re-negotiation is specific to Russia, this line of reasoning and negotiation is only applicable to that nation and would be difficult to replicate (and may even run counter) with discussions or negotiations to East Asia and other external stakeholders

- **China:** At a conference at the National Defense University, David J. Smith asserted: “the PRC is mounting an all out diplomatic campaign to derail American ballistic missile defense.”⁴⁹ He further states that while PRC/US relations are primarily focused on Taiwan, offensive ballistic missiles are an essential element of the PRC doctrinal shift which requires an increased warfighting capability. This is reflected in the range of offensive ballistic missile programs, missile payloads, missile defense countermeasures, and other military programs being developed by the PRC. Regional experts who traveled with Strobe Talbott’s U.S. State Department delegation to China point out long standing Chinese objections to NMD are attributable to both the effects on the viability of their country’s nuclear deterrent as well as the perceptions that a U.S. NMD system is primarily aimed at China.⁵⁰ They also point out that Chinese reactions to a U.S. NMD deployment decision could include acceleration of NMD countermeasures development, acceleration of their nuclear modernization program, (which could drive a wedge between the U.S. and its friends in East Asia), or reduced cooperation on issues regarding the Korean peninsula or Taiwan.⁵¹ There continues to be disagreement among U.S. East Asia experts on whether U.S. attempts to convince the PRC that the technical limitations and different variants (NMD systems vice theater missile defense systems) should change Chinese perceptions regarding U.S. intentions and regional strategic balance issues. Yet, all experts seem to agree that Chinese reaction regarding NMD, and its affect on East Asia as well as Russia, should be moved to a “front-burner” issue.⁵²
- **Japan:** Japan also views the issue primarily in terms of a theater missile defense (TMD) application. Although TMD is outside the scope of this case study, it is relevant to external stakeholder concerns regarding destabilization should the technology was applied in their own regions. The NMD issue complicates diplomacy for Japan within the region due to potential Chinese and North Korean response. Japanese responses and

program speed are likely to be directly related to perception of threat and whether Japan believes NMD/TMD systems offer improved position in arms control negotiations for the region. (Note: Japan did perceive an increased threat from China following the 1996 Taiwan Straits crisis and N. Korea due to the 1998 Taepo-Dong launch). Additionally, some experts believe establishment of a U.S. NMD capability would lead to a reduction in U.S. commitments to protect its East Asian allies.⁵³ Technology focus on bilateral TMD efforts may distract from consideration of strategic implications.⁵⁴

- **European Allies/NATO:** The European nations in the NATO alliance focus primarily on the strategic implications but have taken a somewhat wait-and-see approach to U.S. rhetoric and actions regarding NMD deployment. Allied leadership seems to be concerned that NMD could lead to a potential weakening of the western alliance or to an independent U.S. unilateral or regionally disparate response to threat or aggression. France and Ireland voted in favor of the UN resolution pressing the U.S. to abandon plans for anti-ballistic missile defense systems.⁵⁵ However, much of the language has focused on the desire for constructive US/Russian agreement. Lewis Moonie, Britain's Under Secretary of State for Defence, stated in the House of Commons on 28 February 2000: "The Government continues to value the anti-ballistic missile treaty and wants it preserved ... amendments to the treaty are a matter for the United States and Russia." An unnamed British official was quoted as saying, "we understand the momentum of Washington in favour of missile defence ... Britain hoped the U.S. could reach accommodation with the Russians and would prefer NATO allies try to understand and manage any U.S. decision."⁵⁶ While NATO allies are not aggressively contrary, Secretary of Defense Cohen explained during congressional testimony in March 2000 that the Pentagon had been trying for months to convince European leaders of the necessity for development and deployment of NMD.⁵⁷
- **Canada:** Canadian discussions regarding U.S. NMD deployment have been primarily bi-lateral because implications for Canada transcend NATO security arrangements due to proximity and participation in regional defense through the North American Aerospace Defense Command (NORAD). It is likely that NORAD (or the U.S. element of NORAD) would be responsible for the operation of an NMD system if deployed. Canadian government officials have expressed reservations with any U.S. unilateral

actions regarding the ABM Treaty. Furthermore, Canadians have historically opposed any moves that could be perceived as a weaponization of space. Canadian opinion is likely to be expressed in reaction to, rather than preceding, the U.S. President's decision regarding NMD deployment. Government position will be influenced by political party positions within the Cabinet.⁵⁸ Additionally, the Department of Foreign Affairs and International Trade (DFAIT) and the Standing Committee of National Defense and Veterans Affairs (SCONDVA) will play a significant role. SCONDVA's February 2000 visit to NORAD raised the level of interest and profile of NMD deployment in the Canadian government agenda. The Permanent Joint Board on Defense (PJBD), a joint US/Canadian forum on defense issues that meets yearly and reports to the U.S. President and Canadian Prime Minister, and the PJBD's Military Cooperation Committee will provide a strong indication of the Canadian position and actions regarding NMD. It is also noteworthy that a 1999 public opinion poll indicated that 77% of Canadians supported working with the U.S. for National Missile Defense and that support for NORAD was also over 88%.⁵⁹

- **North Korea/Iraq:** These nations have been identified as rouge states and will be covered in more detail in the threat issue discussion.
- **Iran:** Members of U.S. Intelligence community have predicted that Iran is likely to test some ICBM capabilities that could threaten the U.S. by 2010.⁶⁰ Experts discussed possibility that if the U.S. deployed TMD or NMD systems, Iran's instinct would be to counter those systems through some combination of new delivery systems or new targets, including the possibility of threatening regionally located U.S. targets not protected by NMD systems. It is also possible that deployment could affect the balance in the domestic Iranian debate about stances to take in U.S. regional interests.⁶¹
- **Southwest Asia:** Theater Missile Defense is the primary concern of these nations rather than National Missile Defense system focus. The U.S. has been promoting strategic initiatives regarding anti-missile programs of the Gulf Cooperation Council countries. The potential exists that theater missile deployment could calm fears of U.S. regional allies affected by an Iranian/Iraqi ballistic missile threat and draw them to favorably consider other arms control measures.⁶²

In discussing the strengths of external stakeholders, it is important to understand that U.S. decision-makers seem to walk a fine line. On the one hand they want to avoid domestic public perception that they are constrained by foreign nations' opinions. On the other hand, they believe the U.S. needs to be viewed by the world as a nation committed to its international agreements, alliances and organizations. This duality is evident in statements made in response to White House efforts in weighing the allied views regarding ABM treaty discussions.⁶³ Opposing the White House view, were congressional statements such as that of Senator Stevens who said, "The United States had no business going to Russia and asking, could we modify the ABM?"⁶⁴ Senator Cochran, also asserted that, "...it is entirely inappropriate for the UN to consider seriously a resolution that would presume to dictate to the United States what we should or should not do in defense of our own national security."⁶⁵ As a result, these foreign powers are likely to have little direct influence in the NMD debate. Their influence and positions are more often observed through media, relationships with current or former government officials or institutional associations with the State and Defense Departments. The extent to which domestic decision-makers account for the international implications therefore depends on the contact and reliance they have on the associates of the foreign nations, as well as their focus on the strategic subordinate issue.

Step 2: Analyze the Subordinate Issues

With the myriad of stakeholders interacting in a variety of ways, it is essential to look at the subordinate issues shaping their views on national missile defense. As good starting point, we will look at the issues upon which the Clinton administration has specifically stated it will make its decision in June, 2000: the threat, technical feasibility, economic viability, and strategic considerations. To those four, we will add a fifth: the functional management or organizational factors in deploying such a complex system; and a sixth: the domestic political issues not directly related to NMD deployment but nonetheless may have a profound affect on the decision. We briefly describe these issue areas before analyzing the networks that have formed around them.

Threat

“Mr. Speaker, this is a dangerous time for America. Our nation has absolutely no defense against ballistic missile attack and our enemies are well aware of this vulnerability. North Korea, Iran, Iraq, Libya and other rogue nations are currently developing long-range ballistic missiles to deliver chemical, biological, and nuclear warheads to our shores.”

– Rep Bob Schaffer (R-CO)⁶⁶

The threat is the biggest and single most important issue driving the decision to deploy NMD at this time. The ability to predict the nature of the threat is virtually impossible because of the inability to project political and economic developments. The Rumsfeld Commission believes that the threat or perceived threat facing the U.S. now is more advanced than initially assessed and this belief is the major reason proponents are pushing deployment of a limited NMD by 2005. The threat is far different from what the United States faced during the cold war and the last few decades. Its emerging capabilities are broader, more mature and evolving more rapidly than has been reported in estimates and reports by the intelligence community.⁶⁷ Fear and the ease of the transfer of technology have also increased the sense of urgency to deploy a system. Intelligence reports project that the United States will most likely face ICBM threats from Russia, China, North Korea, probably Iran and possibly Iraq. In 1996, because of the growing potential for a rogue state threat, the Defense Department shifted away from pursuit of a technology readiness program, whose goal was to develop the technology that sought to aggressively develop components for an integrated missile defense. The National Intelligence Estimate (NIE), prepared annually by the National Intelligence Council (NIC) and the Central Intelligence Agency (CIA), is used by the President and Congress to assess current and future threats to the United States. Past NIEs indicated that future threats to the United States by its adversaries or “rogue nations” were more than a decade away. However, in the summer of 1998, Congress established the Rumsfeld Commission to get an independent assessment of the magnitude of the threat. The Commission was chaired by Don Rumsfeld and composed of prominent, bipartisan senior policymakers that assessed the threat and the CIA’s process for developing National Intelligence Estimates. The Commission’s findings were unanimous. The nine commissioners recommended the United States analyses, practices and policies that depend on expectations of extended warning of deployment be reviewed and as appropriate, revised to reflect the reality of the environment in which there may be little or no warning.⁶⁸ It concluded that:

- Concerted efforts by a number of overtly or potentially hostile nations to acquire ballistic missiles with biological or nuclear payloads pose a growing threat to the United States, its deployed forces, and its friends and allies. These newer, developing threats in North Korea, Iran and Iraq are in addition to those still posed by the existing ballistic missile arsenals of Russia and China, nations which are not in conflict but which remain in uncertain transitions. The newer ballistic missile-equipped nations' capabilities will not match those of the U.S. systems for accuracy or reliability. However, they would be able to inflict major destruction on the U. S. within about five years of a decision to acquire to acquire such a capability (10 years in the case of Iraq). During several of those years, the U.S. might not be aware that such a decision has been made.
- The intelligence community's ability to provide timely and accurate estimates of ballistic missile threats to the U. S. is eroding. This erosion has roots both within and beyond the intelligence process itself. The community's capabilities in this area need to be strengthened in terms of both resources and methodology.
- The warning times the U.S. can expect of new, threatening ballistic missile deployments are being reduced. Under some plausible scenarios--including re-basing or transfer of operational missiles, sea and air launch options, shortened development programs that might include testing in a third country, or some combination of these--the U.S. might well have little or no warning before operational deployment.⁶⁹

The Rumsfeld Commission's conclusions describing the near term threat facing the United States shocked members of Congress and the intelligence community and increased the urgency to deploy a NMD system. Members of Congress seized upon the Commission's findings to pass a bi-partisan resolution immediately calling for the deployment of a national missile defense as soon as possible.

Technical

“I am reminded of Han Solo's admonition to Luke Skywalker: ‘Jumping through hyperspace ain't like dusting crops, boy.’ Well, hitting a bullet with a bullet, hitting in fact many bullets, with bullets raining down over the entire continental United States at 15,000 miles an hour, and doing it accurately and reliably, is not like dusting crops, either.”

– Rep. Lloyd Doggett (D-TX)⁷⁰

It is difficult to assess the influence of technology on the decision to deploy a NMD because it is the most complicated and least understood issue of the debate. Technologists are the only stakeholders that appear to consistently understand the technical aspects of the various systems and their capabilities. Questions continue to arise as to whether the technology exists to build a national missile defense capable of intercepting missiles from limited ballistic missile attacks by rogue nations. Proponents of NMD almost always qualify their decision to deploy a system by saying that they support the deployment of a system as soon as it is technologically possible. Opponents are concerned about the maturity of the technology and have used test failures as a means to question whether we should continue to invest money in a system that has not proven itself. Debate continues regarding whether a ground-based system is the right system or whether a sea-based, space-based or a combination of all systems is best. A battle users laboratory is being established in Colorado Springs, Colorado to provide input into the material development of the NMD system. The current NMD program is based on a land-based system that can protect the U.S. against the near-term threat and is capable of being upgraded to defend against future threats. See Appendix A for a synopsis of the NMD architecture.

The decision to deploy a NMD system is based on tight, performance oriented schedules that are experiencing delays and failures. These delays and failures have caused some stakeholders to become more skeptical about the NMD technology. The initial intent was to test and deploy a system, and then continue to develop it so that it will be technically ready by 2005. This deployment timeline acknowledges that the current technology is just a foundation on which to build. However, many opponents are using the failure of a test conducted by Raytheon in January 2000 in which the system failed to hit a mock warhead, as a basis to question whether the technology is available. Many technologists continue to believe that there is a technology readiness issue and we are not close to knowing whether current technology meets the technical challenges. One of the most outspoken critics in his self-defined role as a citizen stakeholder is MIT Professor Ted Postol. Postol believes that the technical requirements for the system are too

low and not achievable based on the sensor systems available. He further believes that the test program provides no assurances the desired results can be operationally achieved because the tests are conducted in such controlled environments.

Economic

“The primary budgetary question has been simply whether the future year's defense plan contained the projected budgets required for deployment, disregarding the presumably more important question of whether such expenditures represented a wise investment from the public purse. Absent the eye-popping costs associated with Reagan's Star Wars schemes, the cost of NMD deployment, though non-trivial, has remained an afterthought.”

- John Pike, Federation of American Scientists⁷¹

The NMD debate is not complete without addressing the question: can we fund the development and deployment of a NMD system and at what cost? The economic impact on the NMD debate is a swing and one of the least publicly debated. The economic debate has not received as much visibility as the technical or threat debate. Stakeholders recognize that although NMD is costly, they are not willing to place a price tag on protecting our nation and its national security interests from threats. The bombings of the Nairobi Embassy and Khobar Towers serve as recent reminders of how cutting costs in security measures resulted in the loss of American lives.

There is extensive debate however, on the cost of the NMD system and the trade-offs associated with funding the research, development, testing and deployment of the system. The major concern by opponents is the domestic programs that will go unfunded because of the cost to develop and deploy NMD. Limited financial resources, a zero-sum game, competing demands, and an attempt to balance the budget all weigh very heavily in determining the amount and priority of funding. Republicans and Democrats differ on the priority of funding for NMD. Republicans believe that NMD ought to receive priority funding because when talking about the national security of our nation there is no price tag. Democrats believe that although a NMD is important, there are more pressing domestic issues that need to be funded.

Total cost figures for a NMD system tend to be elusive. Congressional Budget Office (CBO) estimates of \$50-\$60 billion over the next 15 years are roughly double the Pentagon's figure of \$26 billion.⁷² Whichever source is used, it is evident the research, development and deployment of a NMD is and will be costly. With Iran, North Korea, and China reportedly

pursuing advanced missile programs and with Russia boosting its reliance on its nuclear forces, members of both parties appear unwilling to alter plans to spend some \$4 billion annually through 2003 on missile defense.⁷³ The commitment of \$4 billion annually is an indication that NMD will remain a funding priority regardless of party differences between Republicans and Democrats. Since 1993, we have spent almost 7 billion dollars on NMD alone.⁷⁴ Last year the President approved the addition of \$6.6 billion dollars to BMDO's six-year budget. The total DoD procurement budget has steadily increased over the last five years up to \$55.7 billion last year⁷⁵ with U.S. BMD programs consuming nearly \$3.7 billion (with TMD expenditures roughly twice those for NMD).⁷⁶ If you look at President Reagan's "star wars" missile-defense as a measuring tool for costs, the \$50 billion price tag associated with SDI is bound to be in the back of opponents' minds as the funding debate continues for NMD. At this point, the funding of the National Missile Defense system seems to be limited by only what is technologically practical, not money.

The development of NMD means defense contractors competing for sizeable contracts. A hefty amount of money is committed to the research, development and deployment of the system. In this era of post cold war and reduced defense spending, the competition is stiff among defense contractors. Cut throat competition for a shrinking number of large defense contracts coupled with government pressure to reduce costs have resulted in a decrease of profit margins for the contractors. Concerned about the situation, executives in the defense industry have begun calling on the Pentagon to become more involved and to change its current method of winner-take-all competition. Large defense contractors such as Lockheed-Martin and Raytheon are still trying to rebound from the consolidation that began over a decade ago when the cold war ended.

For some members of Congress, deployment of NMD will have an economic impact in their district. Those that have major defense contractors in their districts or states where the system will be deployed stand to gain the most. The resurgence of the space-based laser is a prime example. The program that put the "Star" in Star Wars, has enjoyed a renaissance with the advent of the Republican congressional majority. Initiated by the Carter Administration in response to inflated concerns about Soviet directed-energy weapons programs, the space-based laser was the hallmark of President Reagan's Strategic Defense Initiative. It was reduced in scope but not canceled by the Clinton Administration. Perhaps not unmindful of promises made to Senate Majority Leader Trent Lott (R-MI) that new laser facilities might be constructed in

Mississippi, Congress increased the administration's FY 98 Budget request of \$28.9 million to \$126.9 million.⁷⁷

Funding for NMD and the impact on each service's budget is a major concern for the Department of Defense and the individual services. The budget process is a zero-sum game process. The services already operate on reduced defense budgets and rely on Congress to provide supplemental budgets to keep them afloat. There is concern among the services that they will be forced to fund their portion of the NMD from within their already resource-tight budget.

Because of tight budgets and limited defense spending, we surmised the deployment of a NMD would result in calls for reduction in the services' force structure, forward presence, and equipment modernization to balance the costs of developing and deploying a system. We believed that proponents would try to strengthen their position by promoting the belief that deployment of NMD would provide increased offensive and defensive security thereby allowing a further strength reduction of U.S. forces. Thus far, there are no indications that this is or will be a factor in the active debate. In the long run, it could become a consideration as the NMD strategy continues to evolve.

That said, opponents such as John Pike of the Federation of American Scientists maintain that we spent billions of dollars on missile defense programs and have not hit anything. It is views like Pike's that elevate the importance of the next two scheduled integrated flight tests if NMD is to continue to receive funding at its current rate and put skeptics at ease.

Strategic

"The best description I can offer is that on ABM amendments we persist in interpreting the Russian 'nyet' as a contraction of 'not yet,' while they, with force and persistence, tell us we couldn't be more wrong." - John D. Holum, Senior Advisor for Arms Control and International Security⁷⁸

At a recent conference held at Stanford, the State Department's John D. Holum outlined the broad international and strategic dimensions of a U.S. NMD deployment decision. He described the six elements that Secretary of State Madeline Albright will consider in providing her input to President Clinton's deployment decision. Those elements include: the impact of NMD deployment on U.S. arms control objectives; U.S. non-proliferation objectives; relations with European allies, Pacific allies, Russia, and China.⁷⁹

In the area of arms control, the most significant barrier to NMD deployment is clearly the 1972 ABM Treaty. As described earlier, the Clinton administration would like to deploy an NMD system consistent with the ABM Treaty. The current Phase I architecture is an attempt to maintain this balance, however even a limited deployment would likely fall outside the current agreement. Further enhancement toward the Phase II system would clearly be in violation of the treaty. Thus the Clinton administration has sought treaty modification with the Russians, while reserving the right to unilaterally withdraw if national interests dictate. Potential modifications to or withdrawal from the ABM Treaty have further implications for the future of the START III negotiations. The concern both abroad and in U.S. foreign policy circles is that the foundations of deterrence and strategic stability will begin to unravel.⁸⁰

U.S. leadership in the area of non-proliferation was dealt a significant blow with the Senate rejection of the Comprehensive Test Ban Treaty (CTBT). As the State Department attempts to mitigate the impact of this policy decision, the concern over ABM Treaty modification threatens to erode the U.S. position even further. As the U.S. commitment to arms control and proliferation becomes more circumspect, incentives increase for third-party nations to act outside of these constructs. Thus, through certain lenses, the world may become less secure with the deployment of a United States National Missile Defense. In order to shape these perceptions, the Clinton administration, through the State Department, seeks a dialogue with Russia, our European and Pacific allies, and China. According to Holum: “Such a dialogue imposes a heavy burden on the United States to clearly articulate the purpose of proceeding with NMD, including our view of the threat; the details of our NMD program; and how we see it fitting into a larger worldview, including its impact on the current arms control and non-proliferation regimes, and strategic stability more broadly.”⁸¹

Senior officials concede dealing with Russia will be a challenge, however they have indicated that they will not permit any other country to have a veto on actions that may be needed for the defense of our nation. Some foreign policy experts, including Sam Nunn, Brent Scowcroft, and Arnold Kanter, assert that the timing for the discussion and pursuit of the national missile defense issue could not be worse in the face of deteriorating United States/Russian relations and a fluid political situation in Moscow. These strained relations, coupled with domestic politics, which both countries are mired in as they face elections, will

produce new leaders and legislative bodies complicating matters even more. Timing, they insist, is critical in broaching the subject with the Russians.⁸²

The Clinton administration recognizes Russia as the key to managing NMD diplomacy and is addressing Russian concerns in three broad areas.⁸³ First, the State Department seeks to assure Moscow that, in deploying a limited NMD system; the U.S. is not seeking to change the core foundation of their nuclear relationship. In other words, the U.S. hopes to convince Moscow that a limited NMD will not threaten Russia's strategic deterrent. Closely aligned with this are the negotiating challenges of shoring Russian confidence that a U.S. NMD system remains a limited one. This is an attempt to alleviate the Russians' main concern that a limited NMD architecture deployed today would establish an infrastructure for future breakout. Finally, the Clinton administration has invigorated U.S.-Russian cooperation on measures related to the ABM Treaty, as well as missile defense. By offering to partner with Russia in restoring the Russian ballistic missile early warning network, the possibility of joint intelligence assessment, and an expansion of current cooperative programs in TMD exercise programs, the U.S. seeks to include Russia as a partner in defending against rogue missile threats.⁸⁴

U.S. allies, particularly in Europe, have not been receptive toward the U.S. NMD debate. Their concerns are that NMD will undermine the principle of "shared risk" and could lead to a decoupling of U.S. in the defense of Europe and Japan. Additionally, many allies share Russia's concern that the U.S. is turning away from the deterrence concept and that NMD will lead to an unraveling of the arms control process. Finally, some allies believe that the U.S. perception of the threat is simply overstated. As with Russia, the U.S. hopes to maintain an open dialogue with its allies to mitigate these concerns. Thus far, they have shown relatively little success.

The final piece of the puzzle is China. China, much like Russia, believes that even a limited NMD is part of an overall system aimed against them. Because of its close proximity to North Korea, as well as a limited strategic force, any NMD system countering the North Koreans will also threaten China. Again, the U.S. position is to provide an open dialogue to reassure the Chinese that a U.S. decision to deploy a limited NMD system is not an effort to undermine their security. According to Holum, the barriers to this dialogue are high, and the State Department has had very little success in pressing the issue with the Chinese.

The overall strategic environment is not a favorable one for an NMD deployment decision. The myriad of issues and implications, the reluctance and outright opposition of key allies and treaty partners, and the high stakes of nuclear poker make this the most intractable issue area. Although the Clinton administration has indicated that this “fourth criterion” is critical to the decision-making process, its willingness to “go it alone” has been stated on numerous occasions. The tradeoff between gaining consensus with its strategic partners versus an independent course will be critical in the NMD deployment decision.

Organizational

The organizational issues are not part of the decision-making criteria outlined by the Clinton administration. However, because large changes in organizational structure are required to deploy an NMD system, these issues become paramount at the bureaucratic level, particularly within the Department of Defense. Although many of these issues may not directly affect the Clinton decision, the ability of the bureaucracy to carry out such a decision is deeply impacted. These organizational and functional management issues become the focus of the institutional lens. In a brief review, we will look at issues that impact three areas: the Initial operational capability (IOC) date, the development of the NMD test program, and the deployment of the NMD system.

As mentioned in the opening background discussion, the current deployment decision under consideration assumes a deployed system in 2005. DoD deployment planning and all key programmatic decisions are based from this IOC date. Most stakeholders view this date as a result of current threat predictions. Although the threat of ballistic missile attack by “a rogue nation” is a very real concern in driving toward an eventual NMD deployment, the actual time frame required for a NMD umbrella is somewhat murky. The 2005 initial operating capability (IOC) date for the current system is based less on the Rumsfeld Commission findings that these developing threats: “would be able to inflict major destruction on the U.S. within about five years of a decision to acquire such capability.”⁸⁵ Rather, the 2005 date is primarily a bureaucratic target derived from the FYDP funding profile that started with a Fiscal Year 2000 addition of \$10.5 billion, a five-year profile that currently runs up to 2005. This implies that the IOC date is an artificial one that can be adjusted based on future threat assessments or

programmatic requirements. This key point is often lost in discussions concerning the need for a decision in 2000.

The functional management of the NMD development program directly affects the ability of the Clinton administration to make a decision based on a Deployment Readiness Review (DRR) in June of 2000. Many of these issues were outlined by the Welch panel, named after its chairman, former Air Force Chief of Staff General (retired) Larry Welch. Commissioned by the BMDO director, the Welch panel originally met in late 1997 and early 1998 to assess the risk in flight test programs for the hit-to-kill (HTK) ballistic missile defense programs. In response to a request from Congress, the Welch panel convened a second time in 1999 to review the NMD development program. The Welch panel found:⁸⁶

- The Administration and the Congress have determined that the urgency of the need justifies a high-risk schedule to be ready to deploy a limited NMD system
- Actual and anticipated delays in key events have compressed the program schedule
- Continued compression would require that decision points be adjusted to retain the program risk reductions
- Care is needed to ensure that maintaining a capability for an earlier emergency deployment does not detract from the focus on fielding a system in 2005 with the initial capability required

In a program that is based on schedule-driven versus event-driven success, the Welch panel cautioned against further compression. Since the Welch panel report, the NMD test program faced a significant setback with the failure of Integrated Flight Test (IFT) #4 and the delay of IFT #5 until April. By the Welch panel recommendations, this delay would suggest a subsequent slip in the DRR and thus the presidential decision. The Welch panel also recognized flaws in the DRR process itself. The panel noted that the DRR schedule poses a very demanding administrative and program planning workload on the government and the LSI. It recommended that the DRR be changed from a Deployment Readiness Review to a system development feasibility review. If adopted in the SECDEF's recommendation to the NSC and the President, this would indicate a shift from making a decision based on current technical readiness to one based on program progress. The Welch panel's assessment of the overall program as "still high risk" questions not only the technical capability of the proposed system, but also the functional management of the development program.

In deploying the NMD system, a number of organizational issues remained to be worked out. These include roles and missions, BMC3 integration, and offense/defense integration. Deployment of an NMD system cuts across current institutional boundaries and the roles and missions of the various services in operating such a system is not well defined. Despite the Army's designation as lead service, no military branch has claimed ownership of the system. Operational users of the system, such as USSPACECOM and NORAD face additional technical and organizational challenges in integrating the BMC3 system into their current warning systems. Finally, the U.S. military as a whole must grapple with the change in strategic emphasis from offensive to defensive. With minimal time for making an offensive launch decision, the added complexity of evaluating the success of a ballistic missile defense in a given attack will complicate STRATCOM's ability to launch its offensive forces. These are just a sample of the operational requirements that currently fall outside the President's decision-making process, however the extent of support from institutional stakeholders is directly proportional to their perceived ability to work out these not insignificant details.

Domestic Politics

The last category of issues is the most difficult to gauge because of its implicit nature, yet domestic politics may well be the biggest factor in a NMD deployment decision. The primary factors in this area include fundamental beliefs about domestic security; local interests; the legacy of an outgoing President; and election year politics.

For many of those passionate proponents of NMD, it would be irresponsible to leave the nation vulnerable to nuclear missiles if a system can be developed to block them. This argument questions the fundamental strategy of deterrence over defense, but because it accounts only for American self-interests, it plays out as a domestic issue. The majority of the American public does not understand the underlying strategic complications of the issues, but have a sense that any protection is better than no protection at all. Most Congressional proponents, such as Rep Curt Weldon and Senator Thad Cochran, view it as their duty to protect the citizens in any way possible. Missile defense offers a visible sign they are carrying out that duty. From this lens, proponents support a national missile defense, not because of any self-interest, but because they believe it is fundamentally in the best interest of its citizens. Likewise, those in Congress who

oppose NMD, tend to do so because they fundamentally believe that arms control and deterrence are in the best interest of the American citizens.

There is little evidence that any of the policy-making stakeholders are engaged in the debate purely for selfish motives, such as to make a name or get elected. However, local interests affect some proponents' views. Senators and congressmen whose constituency stands to gain jobs or prestige are engaged on certain aspects like basing and funding issues. However, these local interests tend to fit within the context of the lawmakers underlying beliefs about national security. For example, Republican Senator Ted Stevens is a natural advocate of national missile defense, and his position is enhanced by a proposed basing concept in his home state of Alaska. In North Dakota, Senator Kent Conrad favors NMD only within the context of the current ABM treaty.⁸⁷ This position, consistent with that of his Democratic brethren, is further influenced by the fact that the only basing concept possible within the current treaty would be in North Dakota.

In the presidential arena, Bill Clinton has publicly stated support for the NMD concept, but additional domestic factors may weigh in his decision. As an outgoing President, Clinton will view the NMD decision in the context of his legacy. With several domestic defeats in the foreign policy area, notably the Senate's defeat of the CTBT, Clinton's decision may affect his historical standing with regard to arms control. Whether he is seen as presiding over the sunset of arms control or the dawn of a brave new defensive paradigm will weigh heavily in his decision. Thus far, he has given no indication as to how he perceives his legacy in this area. That said, Clinton's opponents appear to be positioning themselves to block any perceived successes by the administration in its last months. Senate Foreign Relations Committee Chairman Senator Jesse Helms has vowed to block any modification of the ABM treaty negotiated by the Clinton administration. Despite being a natural supporter of the NMD concept, Helms stated he wanted no part of a "final photo op" to help burnish Clinton's legacy in the international arena.⁸⁸

Helms' seemingly incongruous position is related to the politics surrounding the 2000 presidential election. Both party candidates, Republican George Bush and Democrat Al Gore, have publicly stated they favor a national missile defense. However, the timing of the decision has different ramifications for each. For Gore, it would be beneficial for Clinton to make a positive decision in the summer. This would indicate Democratic support for a traditionally Republican issue and eliminate it as an issue of contention. In fact, some articles have cynically

accused the presidential decision as strictly an election ploy.⁸⁹ For Bush, a delay in the decision would allow him to accuse the current administration as being soft on defense. Additionally, should Bush win, he would be able to push a decision in his first year of office, potentially gaining an early political victory. Although these scenarios are plausible, the more likely influence of the election campaign would be for Clinton to delay a decision in favor of the new administration, either Republican or Democrat, who would be responsible for carrying out the decision.

Step 3: Establish Linkages Between Stakeholders and Issues

Now that we have identified the major stakeholders, we can begin to build the network through which these players interact. Through these networks, stakeholders have influence on the policy decision through the major decision-makers in the White House and Congress. In building these networks, we should look for simple and easily defined relationships and interactions. Once these are identified, we can add as much detail as time and energy allows. In this case study, we have provided additional analytic detail gained from in-depth interviews.

In Figure 1, we begin to diagram the network by identifying the major stakeholders in each category. In aligning the stakeholders, we seek to identify the interactions of the various stakeholders across the categories, as well as the intertwining of their influences. Difficult to view as a whole, stakeholder influences, or strengths, can best be understood by looking through the issue lens through which each stakeholder will view the policy debate.

The interactions of the various stakeholders can best be understood by viewing the various perspectives on the subordinate issues. Stakeholders that interact around a particular subordinate issue form an issue network. Many stakeholders are focused solely on a particular subordinate issues area and concentrate their strength in that issue network. Those stakeholders who exhibit strength across several issue networks will have greater influence on the overall debate. In this section, we will look at the networks formed around each subordinate issue and assess relative stakeholder strengths in each network.

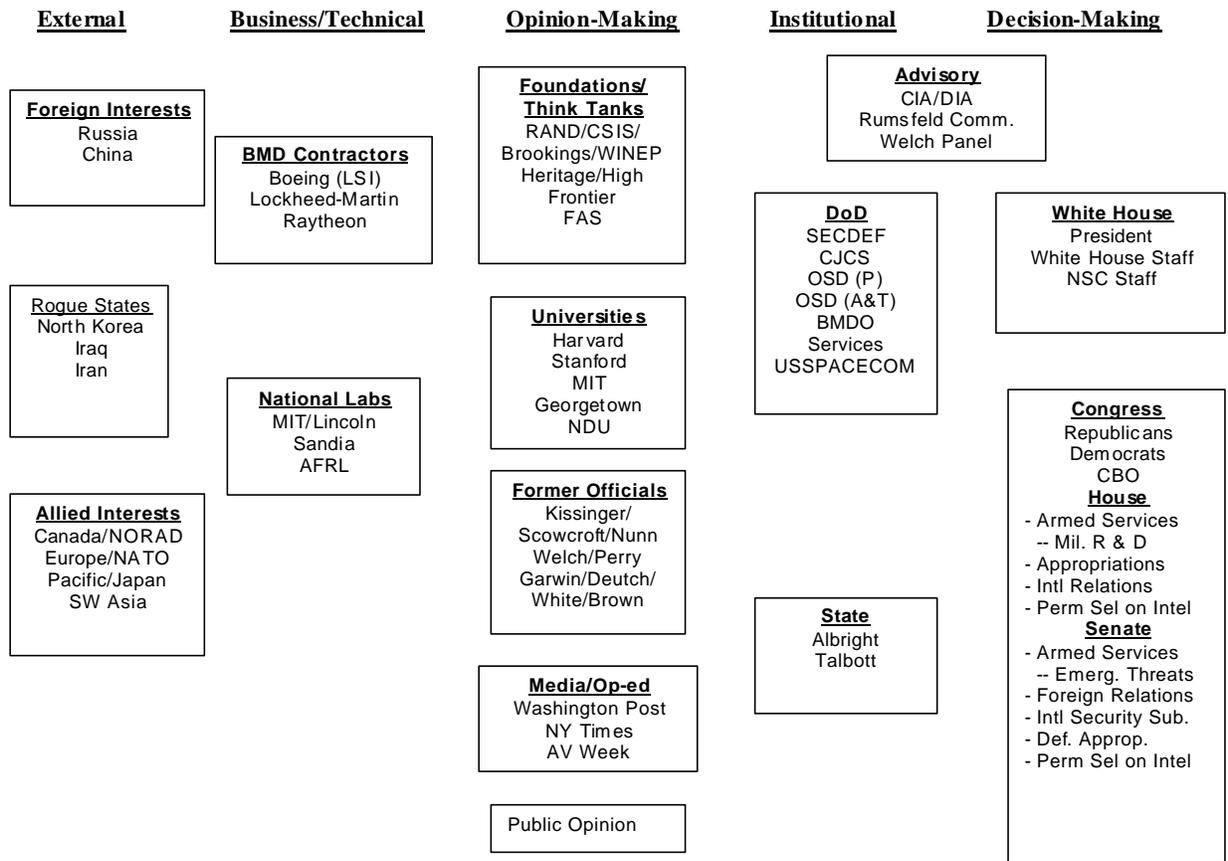


Figure 1: NMD Stakeholder Network

Threat

As previously mentioned, the ballistic missile threat from rogue nations provided the original impetus for the resurrection of the national missile defense concept. As such, it will be one of the four main criteria used by the Clinton administration in making its deployment decision. The process for evaluating this criterion is relatively straightforward and is depicted in the issue network diagram in Figure 2.

This diagram is part historical, in that it reflects a number of actions that have already occurred, yet will have continuing effect on the Clinton decision. The Rumsfeld Commission's threat assessment continues to have wide-ranging impact, directly leading to passage of the National Missile Defense Act of 1999 after failed attempts by Congressional Republicans to pass

similar legislation in 1997 and 1998. President Clinton's reluctant signature on the bill was a tacit signal of the strength of the commission's findings. Revised threat assessments by the National Intelligence Council will update the threat picture for the Clinton decision. Based on these assessments, the DoD, State Department, and the NSC will provide recommendations to the President and his staff. Additional input into the progress of the North Korean capability has been provided by former SECDEF William Perry, as the special Presidential envoy designated to assess the U.S. options toward North Korea. Although Perry does not specifically focus on NMD, his report seems to substantiate the Rumsfeld findings on North Korean progress.⁹⁰ Congressional involvement in the decision process will be limited to hearings on revised threat assessments. The viewpoint from Congressional proponents is that with the passage of the National Missile Defense Act, the decision to deploy an NMD system has already been made and Clinton's decision is to simply determine the final architecture. In Curt Weldon's words: "In fact, as far as the Congress is concerned, we have made our decision on deployment, and the only thing we consider when we talk about a decision next June [2000] is the deployment schedule."⁹¹

Table 1 captures the major stakeholders and their relative strengths in the threat issue. There is little disagreement among stakeholders that there exists a future ballistic missile threat from rogue nations. Any disagreement will come from the perceived timing and detailed capability of that threat. In this issue area, the strongest stakeholders will be those who interpret the timeframe and capabilities and provide recommendations directly to the President. As far as Congress is concerned, the Rumsfeld report provided sufficient compelling evidence of the immediacy of this threat. Congressional proponents tend to view the NMD issue almost entirely through this threat lens. If Clinton decides to delay his decision based other issue areas, he will have to mitigate Congressional concerns of an impending ballistic missile threat.

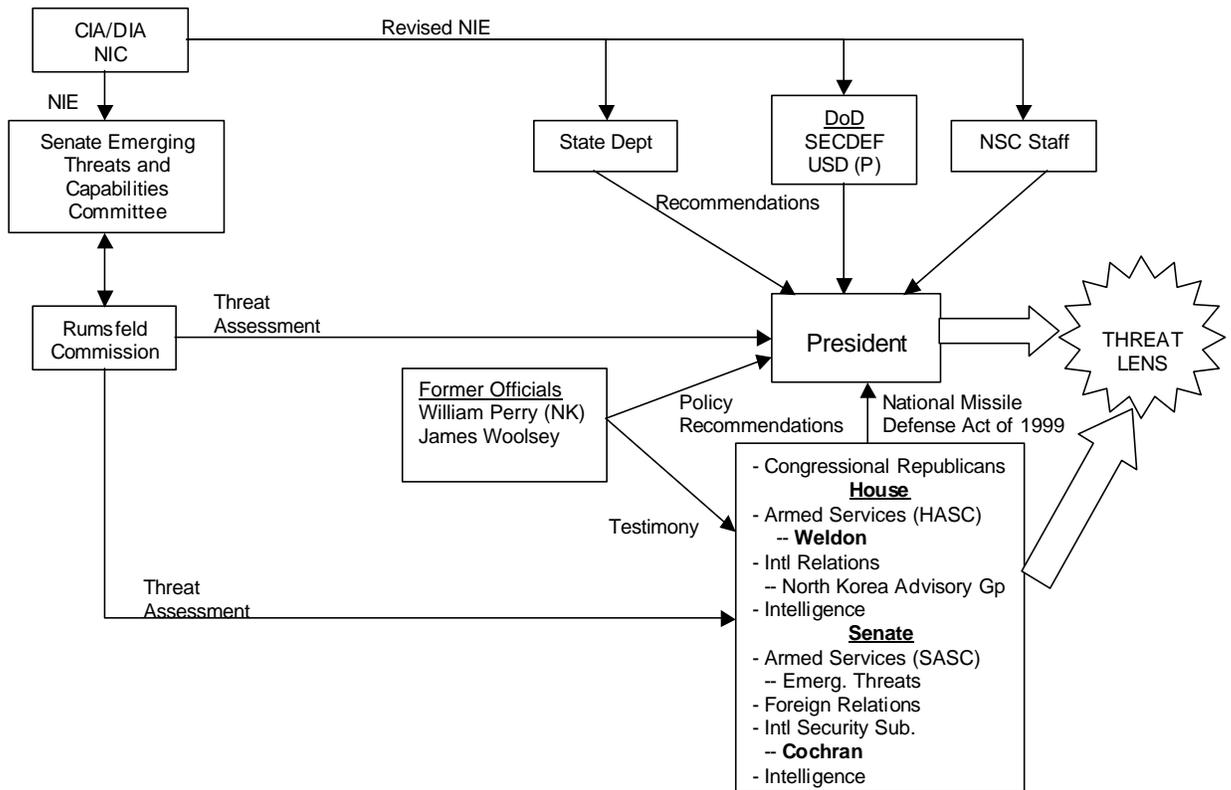


Figure 2: Threat Issue Network

<i>Stakeholder</i>	<i>Strength</i>	<i>Comments</i>	<i>Driver</i>
President Clinton	High	Decision-making	Unknown
NSC Staff	Med	Recommendations	Unknown
DoD	Med	Recommendations	Positive
Rumsfeld Commission	Med	Threat Assessment	Positive
CIA/DIA/NIC	Med	Revised NIE	Positive
William Perry	Med	US NK Policy Coord/ Special Advisor to President	Positive
Rep Curt Weldon (R, PA)	Med	Sponsor HR #4, Chmn House Mil R & D Comm	Positive
Sen Thad Cochran (R, MS)	Med	Sponsor SR #257, Chmn Sen Sub Intl Sec	Positive
House/Senate Republicans	Low	National Missile Defense Act of 1999	Positive
SASC/HASC	Low	Threat Hearings	Positive
House/Sen Sel Intel Comm	Low	Intel Oversight	Positive
Sen Foreign Relations	Low	Hearings	Positive
House Intl Relations	Low	North Korea Advisory Group	Positive
James Woolsey	Low	Former CIA director/ Congressional Testimony	Positive
State Dept	Low	Recommendations	Unknown

Table 1: Threat Issue Network - Stakeholder Strengths

Technical

The push or pull from the technical lens is the most difficult to assess due to the complexity of the system and the confusion that arises among stakeholders. However, the process for evaluating the technical readiness is relatively straightforward and is included in the technical issue network diagram in Figure 3. The linchpin of this process will be the Deployment Readiness Review (DRR) to be held by the DoD in June. Although the DRR will not constitute the actual to decision to deploy, it will assess the technological progress to support a deployment decision.⁹² The recommendations resulting from the DRR will be the basis for evaluating the technical readiness criterion for the deployment decision. Thus, those institutional stakeholders directly involved in the process, such as the BMDO, the Undersecretary of Defense for Acquisition and Technology Jacques Gansler, and the SECDEF William Cohen will have the greatest influence in this issue. Previous recommendations from the Welch panel will carry some weight in evaluating the overall program.

Among the decision-makers, proponents such as Rep Curt Weldon and Sen Thad Cochran will remain engaged on the technical issue, and will continue to drive to a technical solution. They will be met with some resistance by a group of Congressional Democrats that has already petitioned for a delay for additional testing.⁹³ Additionally, various committees within Congress are likely to continue to hold hearings on the technical feasibility of the NMD system.

Other stakeholders involved include the BMD contractors, who not only manage the program, but also will attempt to lobby Congress for support in their favor. As the importance of the integrated flight tests become clear, assessment of these tests by the national laboratories will carry some strength. Opinion-makers may have some influence, although those most vocal will likely be critics of the technological capability. However, because they will not have a direct input into the policy process, these opponents will attempt to use the media to convince Congress and the public that the technology is not ready. Because technical details are classified, these opinions will not be given credibility by the decision-makers.

The failure of IFT #4 in January 2000 makes the success of IFT #5 imperative for a favorable decision on the technical readiness. Even with a warhead “kill”, the interpretation of technological success in that test will leave most stakeholders uneasy. Thus, the technology issue becomes the “swing issue” with which many stakeholders will be able to justify or rationalize their support.

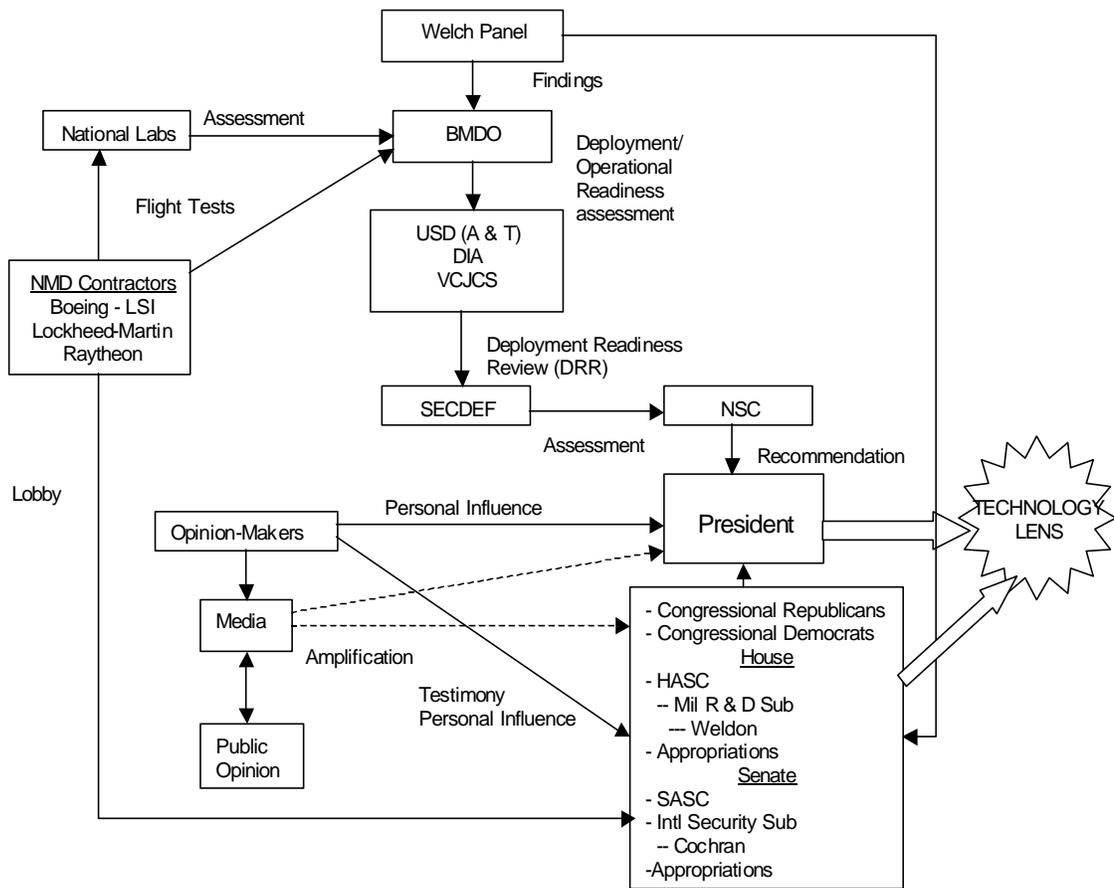


Figure 3: Technical Issue Network

<i>Stakeholder</i>	<i>Strength</i>	<i>Comments</i>	<i>Driver</i>
President Clinton	High	Decision-making	Unknown
SECDEF	High	Assessment/Advisory	Unknown Awaiting DRR
USD (A&T)	High	Controls DRR	Unknown Awaiting DRR
BMDO	High	Operational Readiness Assessment	Positive
Weldon	Med	Policy-Making	Positive
Cochran	Med	Policy-making	Positive
Defense Contractors	Med	Lobbying, Program Mgt	Positive
Welch Panel	Med	Findings: classified program as "high risk"	Neutral
NSC	Med	Advisory	Neutral
National Labs	Med	Assessment of flight test results	Positive
Congr. Democrats	Med	Pushing for delay	Negative
Congr Republicans	Med	Push for deployment with continued tests	Positive
House/Sen Appropriations	Low	Committed funding for R & D	Positive
HASC/SASC	Low	Hearings on Tech readiness	Positive
FAS/Pike/Postol	Low	No direct access	Negative
Media	Low	Not sufficiently engaged	Negative
Public Opinion	Low	Not sufficiently engaged	Negative

Table 2: Technical Issue Network - Stakeholder Strengths

Economic

The economic issue is one of the least discussed in the NMD debate. The central question is: can we afford it? Until very recently, cost estimates tended to be either classified or speculative. Because the actual deployment and architecture details have yet to be worked out, no accurate cost estimate can be made. Thus stakeholders tend to view this issue through the lenses of the other issues. In other words, those that believe that national security is truly at stake will argue NMD is affordable at any cost. Those with reservations in other areas will reflect those reservations in this issue. Until an accurate assessment of the cost can be made, a wide variety of viewpoints will exist.

Another, more subtle aspect of the cost issue is the balance that must be struck between NMD and other fiscal priorities. It is easy for Congress to get behind a generic statement of support for NMD as in the National Missile Defense Act of 1999; it is quite another to fund it at the expense of competing programs. Outward proponents of NMD may be lukewarm or even against fiscal support in certain cases. This applies in the institutional arena as well. The military services, although outwardly supportive of NMD, have a tacit reluctance to fully adopt the program due to fears of reduced funding in other areas. This phenomenon is a classic problem with national security innovations that cut across existing organizational boundaries. In table 3, we have considered this effect in evaluating strength and support for the NMD program as view through the economic lens. The economic issue will also be a “swing issue”, but not as important as the technology issue.

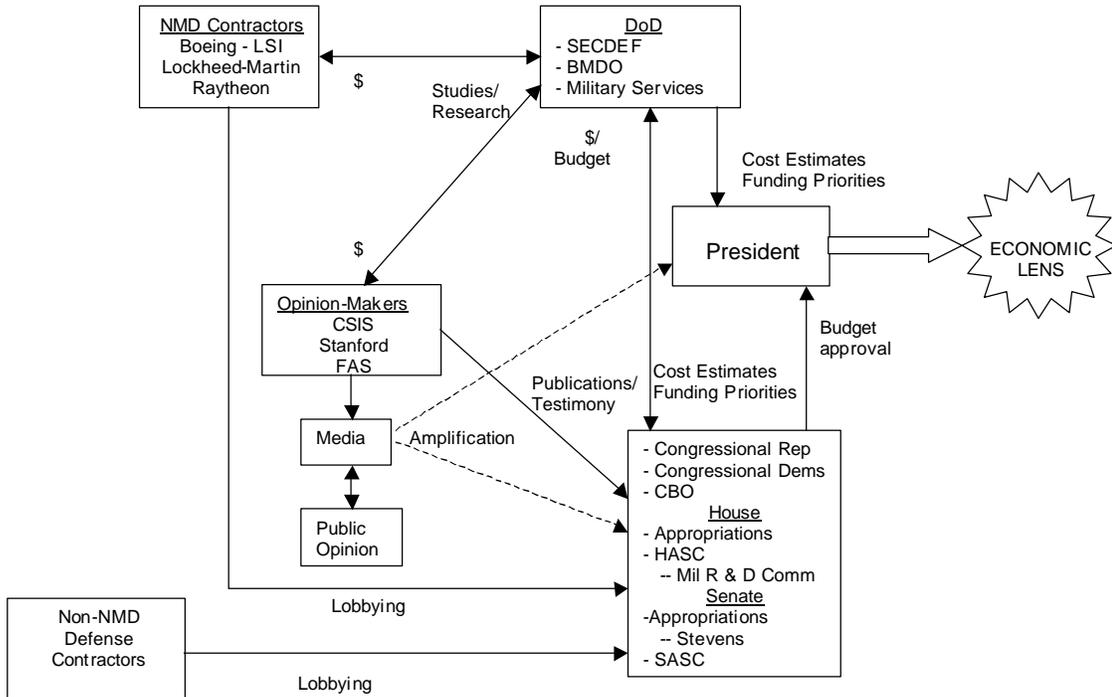


Figure 4: Economic Issue Network

<i>Stakeholder</i>	<i>Strength</i>	<i>Comments</i>	<i>Driver</i>
President Clinton	High	Decision-making	Unknown
House/Senate Appropriations	Med	Appropriations; conflicting priorities	Divided
Congressional Republicans	Med	Policy-making	For
Congressional Democrats	Med	Budget; Conflicting priorities	Negative
SECDEF	Med	Advisory	Positive
NMD Contractors	Low	Lobbying	Positive
Military Services	Low	Conflicting budget priorities	Negative
BMDO	Low	Cost assessment	Positive
Non-NMD Defense Contractors	Low	Lobby; conflicting priorities	Negative
Opinion-makers (CSIS/Stanford/FAS)	Low	Little discussion of costs	Divided
Congressional Budget Office (CBO)	Low	Cost estimates 2x BMDO estimates	Negative
Media	Low	Little Discussion of Economic issues	Negative
Public Opinion	Low	Not engaged	Neutral

Table 3: Economic Issue Network - Stakeholder Strengths

Strategic

In the area of strategic agreements, we find the largest barriers to NMD deployment. Apparent intransigence from Russia and China, and negative concern from the allied perspective, makes this a difficult issue for proponents of the NMD system. Although some stakeholders are willing for American to “go it alone”, most would like to see an NMD system deployed within the framework of an existing or modified ABM treaty. A system built under the current agreements would have limited utility, and thus far the State Department has had little success in negotiating any modifications.

Figure 5 shows the issue network and how it will affect the Presidential decision. Table 4 shows the relative strengths of the depicted stakeholders and the direction of support. Clearly, the State Department is the key player in negotiating with the external interests and making policy recommendations to the administration and Congress. Without success in negotiation on the ABM treaty, support for NMD deployment from the strategic perspective will be tentative at best.

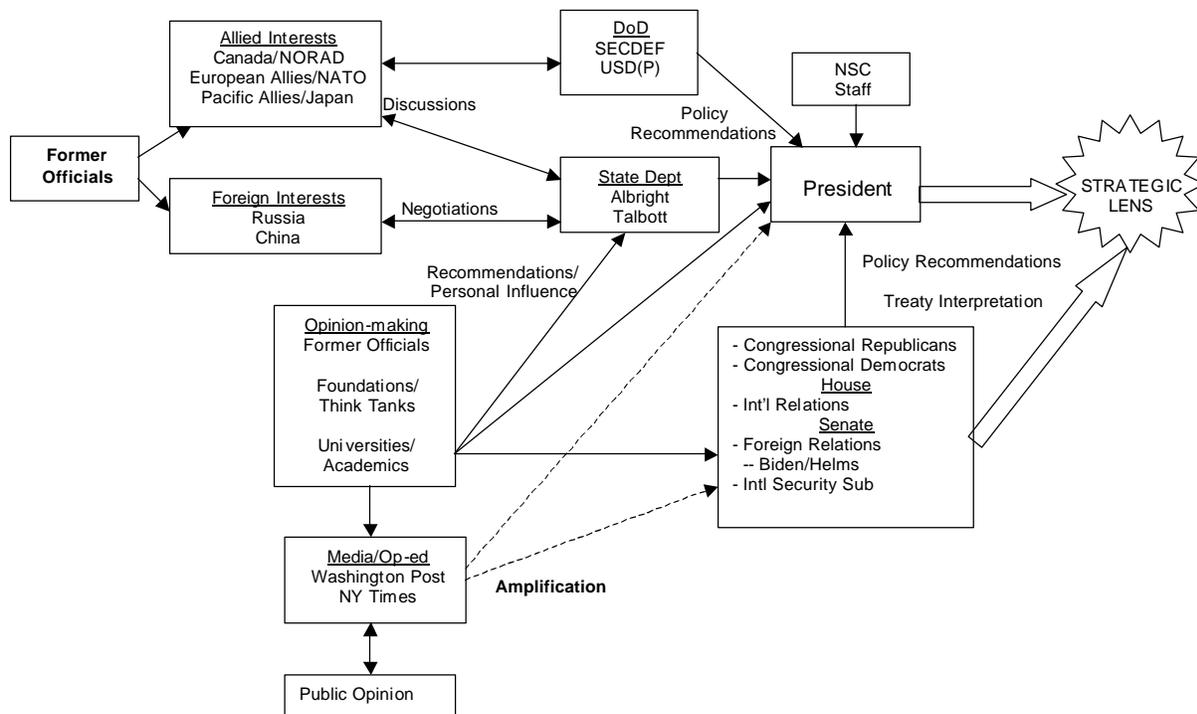


Figure 5: Strategic Issue Network

<i>Stakeholder</i>	<i>Strength</i>	<i>Comments</i>	<i>Driver</i>
President Clinton	High	Decision-making	Unknown
SECSTATE Albright	High	Policy Recommendation	Negative
Dep SECSTATE Talbott	High	Direct Negotiations	Negative
Russia	High	ABM Treaty	Negative
Congressional Republicans	Med	Divided over abrogation vs modification	Divided
Congressional Democrats	Med	Against ABM Treaty abrogation	Negative
Senate Foreign Relations: Helms/Biden	Med	Treaty Interpretation Divided over abrogation vs modification	Negative
European Allies/NATO	Med	Strategic concerns	Negative
Canada	Med	NORAD component	Negative
SECDEF	Med	Policy recommendation	Positive
USD (P) Walt Slocombe	Med	Policy recommendation	Negative
Former Officials	Med	Foreign Policy expertise and credibility	Negative
Media	Med	Against treaty abrogation	Negative
China	Low	Alliance with Russia	Negative
Pacific Allies	Low	Regional concerns	Negative
NSC Staff	Low	Policy recommendation	Unknown
House International Relations	Low	For treaty compliance or mod	Divided
Foundations/Think Tanks	Low	Recommendations	Divided
Public Opinion	Low	Generally uninformed	Divided

Table 4: Strategic Issue Network - Stakeholder Strengths

Organizational

Organizational and functional management issues will be critical in the successful deployment of an NMD system. However, these issues reside almost exclusively at the institutional level and do not involve the President or Congress. To the decision-makers, these are strictly details left to the DoD to deal with. Certainly, Congressional oversight will be a factor in some of these issues, however these details will have little influence on a decision-maker's support or opposition to the program. Thus, we have not attempted to define the organizational issue network. Any issue network without decision-maker involvement will have virtually no impact on the final decision.

There is, however, one key point within the organizational context that must be reiterated. The IOC date is bureaucratically driven rather than threat based, and thus may have some influence on the urgency of the decision to be made in 2000. Thus far, there is no evidence of any stakeholders making note of this point, therefore the impact may be slight. However, if

momentum builds to delay a decision, this point may be used to mitigate the threat impetus and allow for a delay.

Domestic Politics

As previously described, the domestic politics lens will be formed by fundamental beliefs about domestic security; local interests; the legacy of an outgoing President; and election year politics. Figure 6 depicts the issue network that forms around these issues. This network may increase in importance and size as the decision nears, particularly if NMD becomes an election issue. During the primary season, however, it appears that NMD will not be a major issue in the election, thus the decision may remain relatively free of domestic political concerns. Table 5 depicts the strengths of the various stakeholders concerned with this issue. Overall, domestic politics will have the least predictable influence on the NMD decision.

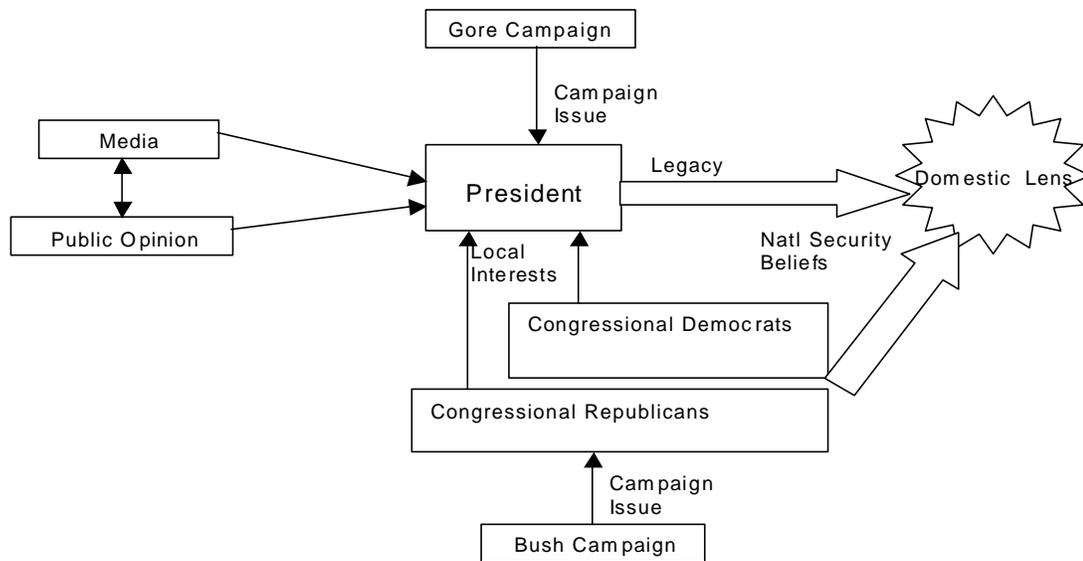


Figure 6: Domestic Politics Issue Network

<i>Stakeholder</i>	<i>Strength</i>	<i>Comments</i>	<i>Driver</i>
President Clinton	High	Desire for Legacy	Unknown
Congressional Democrats	Med	Nat'l Security Beliefs, local interests	Divided
Congressional Republicans	Med	For missile defense; against administrations proposals	Divided
Media	Med	Affects decision-makers perceptions	Unknown
Gore Campaign	Med	Election issue; administration success favorable	For
Bush Campaign	Low	Election issue; administration success unfavorable	Delay
Public Opinion	Low	Uninformed	Divided

Table 5: Domestic Politics Issue Network - Stakeholder Strengths

Step 4: Assess the Strengths of Stakeholder and Issue Networks

As we have seen, NMD stakeholders interact primarily through an interchange of money, research, ideas and influence, and policy recommendations. Building on the network of the previous section (Figure 1), we can synthesize the interactions as developed in each issue network. In doing so, we obtain a complete network diagram shown in Figure 7. In this diagram, we link the outputs of certain stakeholders with their impact on other stakeholders. For instance, the foreign interests of Russia and China exert their influence through negotiations with the State Department. Similarly, allied interests exert their influence through the State Department as well as their ties to the Department of Defense. These institutional stakeholders will in turn filter these views as part of their policy recommendations to the decision-makers. Generally, most stakeholders will affect the decision-makers indirectly through institutional stakeholders, except in the case where personal connections exist. This is particularly true in the case of former government officials. These stakeholders, who may have current positions in academia, think tanks, corporations, or even media, exert influence and provide policy recommendations to their former institutional employers. Additionally, these officials may have powerful connections both in Congress and in the White House, providing a multiplicative effect of their opinions. Unfortunately, these personal relationships are the most difficult to identify.

We should point out that not all stakeholders in a sub-category enjoy the same accessibility to other stakeholders. This is particularly true of those generally opposed to defense programs. For instance, the Federation of American Scientists does not have any influence inside the normal policy process due to its well-known opposition to defense programs. Thus, it receives no money from government institutions, nor does it have a direct input of its research, ideas, and recommendations. Stakeholders such as these seek to influence policy from the outside looking in, primarily through op-ed pieces to affect public opinion and the media.

While the network diagram is useful in understanding the interactions among stakeholders, we can simplify our understanding by diagramming the strengths of the issues themselves. Thus we assume each issue has a certain influence on the overall outcome according to the influence of its issue network. By synthesizing the analysis of the previous section, we can derive the strengths of each issue network as shown in Table 6.

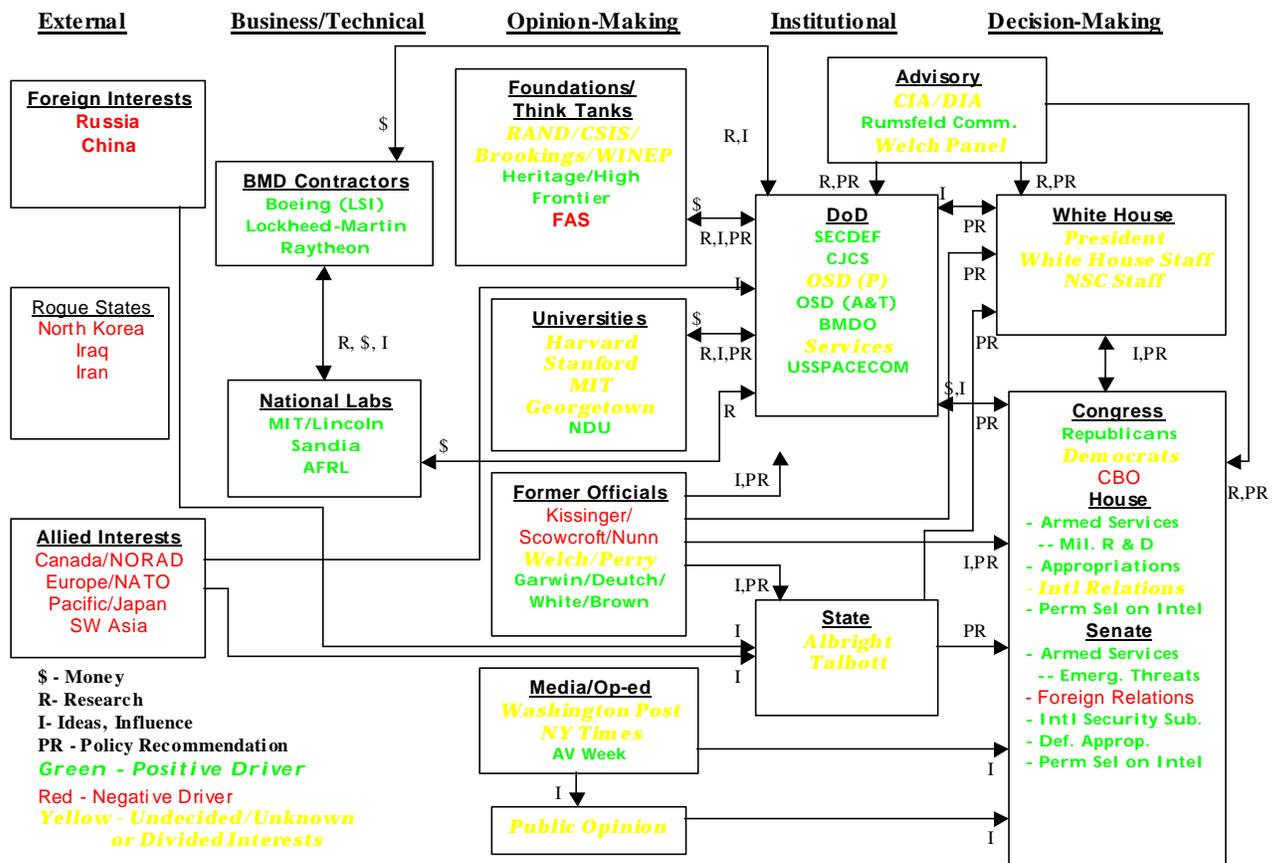


Figure 7: NMD Stakeholder Network and Interactions⁹⁴

<i>Issue Network</i>	<i>Strength</i>	<i>Driver</i>
Threat	High	Positive
Strategic	High	Against
Technology	High	Undetermined
Domestic Issues	Med	Divided
Economic	Med	Neutral
Organizational/Functional Mgt	Low	Neutral

Table 6: Issue Network Force Analysis

National Missile Defense: Not Quite Ready for Prime Time

In comparing the strengths of each issue network in Table 6, there appears no clear impetus for an NMD deployment decision at this time. Although the threat issue is compelling to many stakeholders, it is counterbalanced in opposition by problems with the strategic issues.

The current alignment of forces suggests an overall neutral environment. This is insufficient to overcome programmatic and ideological inertia inherent in a national security innovation. Change is unlikely without a preponderance of force in the direction of change. In the case of national missile defense, a positive force balance will only occur when technological success has been proven or sufficient progress in negotiations is made to neutralize the strategic concerns. For the Clinton decision in the summer of 2000, the force alignment indicates an advantage in delaying the decision to the next administration.

In examining the relationship between stakeholders and subordinate issues concerning the NMD deployment decision, the debate centered on two subordinate issues:

- The *threat* of ballistic missile attack by a “rogue nation” is a very real concern in driving toward an eventual NMD deployment and the greatest impetus for a deployment decision. An overwhelming majority of stakeholders have focused on the threat as the top issue in considering NMD deployment. Congressional members responded to the Rumsfeld Commission Report much like a call to arms; civilian and military leadership testified to the threat of rouge nations and the need for BMD; and numerous think tanks, universities and media published BMD-related articles supporting the threat assessment. Within the administration, the National Security Staff, in a set of carefully crafted White House talking points, leaves open the question of a deployment decision while acknowledging the seriousness of the threat. While there exists a small network of stakeholders that would have preferred a stronger policy focus on defense against alternate means of WMD delivery (such as cruise missiles, terrorist backpacks, container shipping, and the like), even this view recognizes the potential for NMD as part of a larger strategy. Thus, the support for national defense from ballistic missile attack, and the strength of the network of stakeholders surrounding the threat issue related to NMD deployment was the strongest in the case study. Despite this unanimity, questions remain concerning the maturity level of this threat and exactly when it would require a defensive strategy. Upon close examination, it appears that the current timeline calling for a deployed system in 2005 was established for primarily

bureaucratic reasons rather than from a definitive date in the threat assessment. Even proponents do not uniformly adhere to any specific date, but rather reference the need to deploy a system as soon as possible. Because this deadline is somewhat artificial, it reduces the sense of urgency concerning the threat and opens the door for a delay.

- The status of U.S. *strategic* agreements is still very much in doubt. Talks between the State Department and the new Russian government have made little progress. U.S. allies and partners, described as the external stakeholders during this case study, continue to be nervous over a perceived unilateral decision to move forward on NMD. Universal international angst over the NMD program resonates within a network of domestic stakeholders including members of the Senate Foreign Relations Committee, the National Security Council staff, the State Department, the Policy office in DoD, and international experts at think tanks and universities. Although somewhat lacking the same network strength as the threat issue, the strategic network provides the strongest stakeholder/issue opposition to NMD. The stakeholders in this group will push for additional time for negotiation and discussion. The time required to establish international support stands as the strongest barrier to a 2000 decision by the President to deploy an NMD system.

Simply stated, *stakeholder support for deployment of an NMD system is based primarily on the threat while stakeholder opposition to deployment of an NMD system based primarily on the issue of strategic agreements*. The interesting outcome was that many of the stakeholders are associated with both the proponent and opposition issues. For many, they must weigh the obligation to protect Americans from ballistic missile attack against the need to protect America's position within the international community. As a background consideration, recall that the political leaders are sensitive to the perception that foreign nations might determine U.S. policy. This political sensitivity indicates that any decision to delay (or not to deploy at all) based on the network of strategic concerns and external stakeholders must be rationalized in terms of other subordinate issues. For this reason, elements of the technical and domestic issues will come into play.

- *Technology* readiness, specifically the testing program and its success, becomes a pivot point in the NMD deployment debate. A successful flight test would at best provide only a neutral technology driver, since technology readiness questions will still remain. Knowledgeable

experts in both the institutional and opinion-making categories have admirably demonstrated technological readiness and risk reduction plans. Nevertheless, the development schedule, even by expert BMDO testimony, is considered aggressive. Additionally, technology development and testing are incremental, leaving ample opportunity for continued skepticism. From a stakeholder standpoint, the technology issue appears to be reduced to a confidence vote, requiring proof or assurances that are inconsistent with any innovation development. The active responses of the various stakeholders (those in opposition as well as those on the NMD fence) surrounding perceived test failures, testing sufficiency, and even the focus on the DRR, indicate that this issue is likely to be the preferred rationalization for a delayed or no deployment decision.

- *Domestic politics* is a wildcard issue. Some believe the President might approve NMD deployment prior to the 2000 presidential election in order to help the Democratic candidate avoid Republican criticism of being soft on defense. On the other hand, international criticism regarding a unilateral U.S. decision that affects treaties, global politics, and global economic relationships, would be damaging to that same candidate.

So where does that leave us? A President, who has focused primarily on domestic priorities and has demonstrated sensitivity to international pressures, is faced with opposing political party pressure to make a summer 2000 decision to deploy a NMD system. The strategic issue is likely his greatest concern, and given that the threat and congressional language does not specifically require an immediate decision, he will seek the additional confidence of added testing and technology risk reduction by directing a “slight delay” as those details are worked out. Such a delay will effectively defer any decision to the next presidential administration. In the meantime the strategic issue (the true barrier) can be addressed and additional consensus-building measures can be taken. Assuming this scenario plays out, the Lens Framework should be run again within the first year of the new administration, or just prior to a revised decision timeline, to determine if the timing is right for NMD deployment.

Chapter 3 Endnotes

¹ Ronald Reagan, speech arguing for the Strategic Defense Initiative, 23 Mar. 1983. Quoted in Lewis D. Eigen and Jonathan P. Siegel, ed., *The MacMillan Dictionary of Political Quotations* (New York: MacMillan Publishing Company, 1993) 540.

² In 1955, the U.S. army awarded a contract to Bell Laboratories, to study the feasibility of defending against a ballistic missile attack. The subsequent report claimed that the current technologies now made such a defense feasible and led to the Nike-Zeus program, the first large-scale attempt at a national missile defense system. For a synopsis, see Erik K. Pratt, *Selling Strategic Defense* (Boulder, CO: Lynne Rienner Publishers) 16-26.

³ The specific criteria for decision by the Clinton administration is four-fold: 1) whether the threat is materializing; 2) the status of the technology based on an initial series of rigorous flight tests, and the proposed system's operational effectiveness; 3) whether the system is affordable; and 4) the implications that going forward with NMD deployment would hold for the overall strategic environment and our arms control objectives. See The White House, *A National Security Strategy for a New Century* (Washington, DC: The White House, 1999) 16.

⁴ Pratt 20.

⁵ *Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems*, Article III, Moscow, 26 May 1972.

⁶ Pratt 21.

⁷ Stratfor, "National Missile Defenses: Fighting the Last War," *Global Intelligence Update: Weekly Analysis*, Online Posting, 24 Jan. 2000. 25 Jan. 2000 < <http://www.stratfor.com/services/giu2000/012400.asp>;

⁸ Pratt 87-113.

⁹ Rep. Floyd Spence (SC), statement in the House of Representatives, *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74, 28.

¹⁰ Prior to the Rumsfeld commission report, numerous bills calling for a national missile defense had been defeated in Congress. On January 21, 1997, Senator Richard Lugar introduced *The Defend the U.S. Act of 1997* while on the same date; Senator Trent Lott introduced *The NMD Act of 1997*. Both measures failed, most likely because they included specific deployment details that could not be agreed upon. A bill with more general language similar to the 1999 version, *The American Missile Protection Act of 1998* was introduced in March of 1998 but also failed. Following the Rumsfeld report, Congress was able to gain consensus to pass the 1999 version. Bill status and histories can be found on <http://thomas.loc.gov>;

¹¹ 106th Congress of the United States, *Congressional Record – Daily Digest*, Washington, DC 17 Mar. 1999. 1 Mar 2000 < <http://frwebgate2.access.gpo.gov/>; DOCID:cr17m99-5.

¹² The 106th Congress of the United States, *The Cochran-Inouye National Missile Defense Act of 1999*, Washington, DC, 18 May 1999. 1 Mar. 2000 < <http://thomas.loc.gov/>;

¹³ Rep. Floyd Spence (SC), statement in the House of Representatives, *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74, 46.

¹⁴ Bill Clinton, letter to Rep. Curt Weldon (PA), *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74, 37.

¹⁵ National Security Council, White House talking points, *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74, 41.

¹⁶ NMD Joint Program Office, "NMD Program Update to CBO," unclassified briefing, Washington, DC, 7 Jan. 2000, 3.

¹⁷ While neither the Legislative nor Executive branch documentation specifies the type of missile defense system, the case study will focus on the ground-based intercept system in the C1 architecture (see Appendix A; Table A-1), currently under consideration by the BMDO and the program timelines published for that system. Reference: NMD Joint Program Office, "NMD Program Update to CBO," unclassified briefing, Washington, DC, 7 Jan. 2000.

¹⁸ *Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems*, Article X, 26 May 1972.

¹⁹ For an example BMD policy-planning networks in the 1980's, see Pratt 126.

²⁰ For examples from just a single day following a missile test, see Bradley Graham, "US Missile Test is Latest In String of Successes," *Washington Post* 4 Oct. 1999: A1. ; Bill Gertz, "Cohen Welcomes Test of Missile Defense," *Washington Times* 4 Oct. 1999: 1. ; Jonathon Landay, "Frowns from Abroad: Fallout from U.S. Anti-missile Success," *Christian Science Monitor* 4 Oct. 1999: 1. This trend continued throughout the research period.

²¹ Rep. Curt Weldon (PA), "National Missile Defense Act of 1999 (Extension of Remarks)," *Congressional Record*, Washington DC 30 Jul. 1999: E1706. 4 Apr 2000. < <http://thomas.loc.gov/>;

²² Hedrick Smith, *The Power Game: How Washington Works* (New York: First Ballantine Books, 1996) xiii.

²³ "Missile Defense Proponents Suggest Delaying Decision," *CQ Monitor* 16 Feb. 2000.

²⁴ "Problems Plague U.S. Missile Defense, Panel Says," *Reuters* 14 Nov. 1999.

²⁵ John W. Kingdon, *Agendas, Alternatives, and Public Policies*, 2nd ed. (New York: Harper Collins, 1995) 244.

²⁶ For example, the Air Force published top program priorities supporting satellite-borne warning for missile defense yet gave no priority to the missile defense program overall. See Linda de France, "USAF Space Priorities: Missile Defense, GPS anti-Jam, EELV," *Aerospace Daily* 28 Feb. 2000: 305-306. We concluded the sub-issues under which the AF supports NMD are the desire to support the AFSPACECOM elements of the innovation (radar upgrades and Space-based Infrared System) and a follow-on space-based NMD capability; the AF was not directly supporting the NMD program.

²⁷ On 6 December 1999, *Aerospace Daily* reported that the Pentagon's BMDO was conducting a new study of the notion of using a sea-based national missile defense (NMD) as an adjunct to the planned ground-based system.

²⁸ <http://www.embpage.org/> is the homepage for Embassy.org and provides a database with over 50,000 addresses, phone numbers and email addresses of diplomatic posts worldwide. They also have a section called EmbassyWeb, which contains links to diplomatic offices, international sites, a knowledge base, world news, an open forum, a global bookstore, and a newsletter.

²⁹ Michael Gordon, "Russians Firmly Reject U.S. Plan to Reopen ABM Treaty," *New York Times* 21 Oct. 1999: A1.

³⁰ John D. Holum, Senior advisor for Arms Control and International Security, "The President's NMD Decision and the U.S. Foreign Policy," U.S. Department of State presentation. Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 3 Mar. 2000.

³¹ Michael Gordon, "An Offer on Missile Pact," *New York Times* 17 Oct. 1999. 1 Mar. 2000 <
<http://www.nytimes.com/library/world/global/102199us-russia-abm.html#1/>;

³² Michael Gordon, "Russians Firmly Reject U.S. Plan to Reopen ABM Treaty," *New York Times* 21 Oct. 1999: A1.

³³ The State Department, cable on S.R. 257 to U.S. embassies, *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74, 38.

³⁴ Steven Lee Myers, "Russians Get Briefing on U.S. Defense Plan," *New York Times* 29 Apr. 2000: A3. "The problem with this issue today is they do not know where the limits are on a defensive system -- or that is what they're professing," James F. Collins, the ambassador to Russia said today. "Our people have laid out for them limits that are built in the system, technologically, as well as any limits that we might negotiate."

³⁵ The preponderance of opinion-makers was regional experts commenting on the implications of NMD deployment for particular foreign nations or regions.

³⁶ Gen (ret) Larry D. Welch was a member of the Rumsfeld commission has chaired two panels on the deployment readiness of the missile defense system.

³⁷ In interviews we learned that the Defense Department specifically scheduled press conferences pre- and post major test events, which could be categorized as either fueling or simply responding to the media timing.

³⁸ In a Newsweek poll in January 1999, 44% of the respondents believed that anti-missile defense would be very important and 36% believed it would be somewhat important in determining if the Republicans win the 2000 Presidential election. In a separate NBC/Wall Street Journal poll in Dec. 1998, 45% of those asked believe the U.S. should spend more money on developing a missile defense system, while 38% believe we should spend less.

³⁹ NMD Joint Program Office, "NMD Program Update to CBO," unclassified briefing, Washington, DC, 7 Jan. 2000.

⁴⁰ Dean Wilkening received his Ph.D. in physics from Harvard University in 1981 and spent two years studying defense policy on a Ford Foundation Fellowship at the Center for Science and International Affairs at Harvard., < 29 Oct. 1999. <http://www.stanford.edu/group/CISAC/test/research/bmd.html>;

⁴¹ Dean Wilkening, "Amending the ABM Treaty," remarks to the Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 3 Mar. 2000.

⁴² Bradley Graham, "US Anti-Missile Test is Latest in String of Successes," *Washington Post* 4 Oct. 99: 1.

⁴³ Phil Condit, "The Boeing Stake," Boeing-NMD Web page. 23 Sep. 1999. <
<http://ww1.boeing.com/news/feature/nmd/>;

⁴⁴ Michael Gordon, "Russians Firmly Reject U.S. Plan to Reopen ABM Treaty," *New York Times* 21 Oct. 1999: A1.

⁴⁵ John Reppert and Graham Allison at BCSIA provided excellent assessment of Russian position through visits to Russia as well as hosting experts at Harvard. In addition, BCSIA co-hosted a conference with CSIS on BMD, which included U.S. and international experts on missile defense and treaty relationships. Stanford hosted a conference in Feb. 1999 that addressed International Reaction to the U.S. Ballistic Missile Defenses, and drew experts such as Michael Green from the Council on Foreign Relations, Patrick Clawson from the Washington Institute for Near East Policy, etc. The Claremont Institute and the Heritage Foundation co-hosted a conference in California on February 26, 1999 called "Defending California, the Nation, and America's Allies from Ballistic Missile Attack."

-
- ⁴⁶ During November 1999, articles indicated that the “United States and its NATO allies are set for a divisive debate next month on Washington’s proposals for a limited defense shield...” (“Analysis: U.S. Allies Split on Son of Star Wars”, *Reuters*, 25 Nov. 1999.) In a separate article Defense Secretary Cohen assured NATO allies that American plans to develop a national defense against nuclear missiles would not harm Washington’s commitment to European security (“SECDEF: U.S. Missile Defense No Threat to NATO,” *Reuters*, 29 Nov. 1999.)
- ⁴⁷ The vote by the U.N. General Assembly on a resolution aimed at pressing the U.S. to abandon plans to build an antimissile defense was 80-4 with 68 abstentions. The members of the European Union abstained except for France and Ireland. (“U.N. Opposes U.S. Plan for Anti-missile Defense”, *Reuters*, 2 Dec. 1999.)
- ⁴⁸ Myers.
- ⁴⁹ David J. Smith, “Sun Tzu and the Modern Art of Countering Missile Defense,” Presentation at the National War College, National Defense University, Washington, DC, Apr. 2000.
- ⁵⁰ Bates Gill and James Mulvenon, “Problem: How to Handle Beijing,” *The Washington Post* 5 Mar. 2000: B-3.
- ⁵¹ “Beijing Calls on Washington to Scrap ABM Treaty Changes,” *Agenda France Presse* 8 Nov. 1999.
- ⁵² Michael McDevitt, “Chines and Taiwan Reactions to TMD and NMD,” Talking points presented at the Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 1 Mar. 2000.
- ⁵³ Bates Gill and James Mulvenon, p B03
- ⁵⁴ Michael J.Green, Senior Fellow for Council on Foreign Relations, presented during commentary for Stanford conference, 3 March 2000.
- ⁵⁵ “U.N. Opposes U.S. Plan for Anti-missile Defense,” *Reuters* 2 Dec. 1999.
- ⁵⁶ David Yost, Commentary notes for the Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 3 Mar. 2000.
- ⁵⁷ “Europeans Lukewarm on Need for U.S. National Missile Defense,” *Aerospace Daily* 2 Mar. 2000: 327-330.
- ⁵⁸ Interviews indicate the conservative Reform party is likely in favor of U.S. NMD; the New Demoratic party is likely opposed; Block Quebec is likely opposed; but the key will be the Liberal party position, which is currently unknown.
- ⁵⁹ Pollara, “The Public Perception of the Canadian Forces,” public opinion poll, Dec. 1999.
- ⁶⁰ Robert Walpole, “National Intelligence Officer Statement for the Record to the Senate Subcommittee on International Security, Proliferation, and Federal Services on the Ballistic Missile Threat to the United States,” *Congressional Record*, 9 Feb 2000.
- ⁶¹ Patrick Clawson, Director of Research for WINEP, commentary during the Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 3 Mar. 2000.
- ⁶² Clawson.
- ⁶³ “Allies Have Important Role in ABM Treaty’s Future, White House Says,” *Inside the Pentagon* 23 Sep. 1999, 18-19.
- ⁶⁴ “Missile Talks Off Target,” *Anchorage Daily News* 23 Oct. 1999.
- ⁶⁵ Sen. Thad Cochran (MS), “Modernization of the ABM Treaty,” *Congressional Record*, Washington DC 25 Oct. 1999: S13087. 4 Apr 2000. < <http://thomas.loc.gov/>;
- ⁶⁶ Rep. Bob Schaffer, “A Dangerous Time for America – Hon. Bob Schaffer (Extension of Remarks),” *Congressional Record*, Washington DC 12 May 1999: E948. 4 Apr 2000. < <http://thomas.loc.gov/>;
- ⁶⁷ The Commission to Assess the Ballistic Missile Threat to the United States, “Conclusion of the Commissioners,” *Executive Summary of the Report of the Commission to Assess the Ballistic Missile Threat to the United States (Unclassified)*, 15 Jul. 1998: IIA. 1 Feb. 2000 < <http://www.fas.org/irp/threat/bm-threat.htm>;
- ⁶⁸ The Commission to Assess the Ballistic Missile Threat to the United States IIA.
- ⁶⁹ The Commission to Assess the Ballistic Missile Threat to the United States IIA.
- ⁷⁰ Rep. Lloyd Doggett (TX), remarks in the House of Representatives, “Declaration Policy of United States Concerning National Missile Defense Deployment - House of Representatives” *Congressional Record*, Washington, DC 20 May 1999: H3428. 1 Apr 2000 < <http://thomas.loc.gov/>;
- ⁷¹ John Pike, “National Missile Defense: Rushing to Failure,” *Journal of the Federation of American Scientists* Vol. 52, No. 6, November/December 1999. 4 Apr. 2000 < <http://www.fas.org/faspir/v52m6a.htm>;
- ⁷² Eric Pianin and Roberto Suro, “Cost of Missile Shield Is Double Pentagon Estimate, CBO Says,” *Washington Post*, 26 Apr. 2000, Final ed.: A10.
- ⁷³ Jonathan S. Landay, “US Missile Defense Drifting Off Target”, *The Christian Science Monitor*, 26 Mar.1998: 2.
- ⁷⁴ Walter B. Slocombe, “National Missile Defense Policy”, remarks at the Statesmen’s Forum Center for Strategic and International Studies, 5 Nov. 1999: 3.

-
- ⁷⁵ Rep. John N. Hostettler, "Missile Defense-A Vision," *AUSA News* March 2000: 22.
- ⁷⁶ John Pike, "Ballistic Missile Defense: Is the U.S. 'Rushing to Failure'," *Arms Control Today*, April 1998: 3.
- ⁷⁷ Pike 8.
- ⁷⁸ John D. Holum, "The President's NMD Decision and U.S. Foreign Policy," remarks to the Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 3 Mar. 2000.
- ⁷⁹ Holum.
- ⁸⁰ Henry Kissinger, "Quick Fix on Missile Defense is Unwise and Dangerous," *Houston Chronicle* 6 Feb. 2000, Outlook section: 4.
- ⁸¹ Holum.
- ⁸² Sam Nunn, Brent Scowcroft, and Arnold Kanter, "A Deal With Russia on Arms Control?" *Boston Globe* 13 Sep. 1999: A13.
- ⁸³ Holum.
- ⁸⁴ Mimi Hall and Barbara Slavin, "U.S. Offers Russia Help on Radar System," *USA Today* 18 Oct. 1999: A4.
- ⁸⁵ The Commission to Assess the Ballistic Missile Threat to the United States, IIA.
- ⁸⁶ The Panel on Reducing Risk in BMD Flight Test Programs (The Welch Panel), "National Defense Review," briefing provided to the BMDO, Feb 2000.
- ⁸⁷ "Treaty Talk Underscores Importance of North Dakota," *Grand Forks Herald* 21 Oct. 1999.
- ⁸⁸ Helen Dewar and John Lancaster, "Helms Vows To Obstruct Arms Pacts; Any New Clinton Accord With Russia Ruled Out," *Washington Post*, 27 Apr. 2000. Final Ed: A1.
- ⁸⁹ "A November Missile Defense," *Wall Street Journal*, 15 Feb. 2000, Review and Outlook.
- ⁹⁰ William J. Perry, *Review of the United States Policy Toward North Korea: Findings and Recommendations* (Washington, DC: Department of State) 12 Oct. 1999. 28 Feb. 2000, < http://www.state.gov/www/regions/eap/991012_northkorea_rpt.html;
- ⁹¹ Curt Weldon, quoted in "Rep Weldon (R-PA) Sees Nothing 'Earth-Shattering' in Latest Welch Report," *DefenseAlert* 15 Nov. 99: 11-12.
- ⁹² Lt Gen Ron Kadish, statement, Senate Armed Services Committee, Strategic Forces Subcommittee, Washington, DC, 28 Feb. 2000. 15 Mar. 2000, < http://www.senate.gov/~armed_services/statemnt/2000/000228rk.pdf;
- ⁹³ "Seven Democratic Senators Want President to Delay NMD Decision," *Inside the Pentagon* 17 Feb. 2000.
- ⁹⁴ The basic framework is derived was adapted from Dye's policy-formation process and Pratt's BMD policy-planning network. See Thomas R. Dye, *Who's Running America: The Reagan Years* (Englewood Cliffs, NJ: Prentice-Hall, 1983) 240. Also see Erik K. Pratt, *Selling Strategic Defense* (Boulder, CO: Lynne Rienner Publishers) 126.

CHAPTER 4: OBSERVATIONS AND CONCLUSIONS

The fundamental objective of this research paper was to find a simple yet effective framework for making a predictive assessment on national security innovation programs to answer the question “Is now the right time...?” Research of previous decision-making models enabled the formulation of such a framework and the use of the National Missile Defense case study as a test application led to several observations and conclusions:

Its simplicity? That evaluation is left to the practitioner, but consider the following:

- 1) The Internet did provide a real-time resource to identify participants regarding a particular program as well as their positions on the program and its associated subordinate issues. Access to think tank, university, media, individual congressional members, and organizational websites are free and easily located. As new search engines and portals are developed, this process will continue to simplify.
- 2) The framework is equally applicable to congressional staffers, military programmers, and business strategists. Even the newest or most junior organizational members can perform this analysis--and perhaps should. Since the primary focus of the framework is to identify and view the problem through other lenses, the less indoctrinated members of a staff are actually the best potential researchers. They have less initial bias, and have the most to gain from using the framework regarding knowledge of their program and issues.
- 3) It is noted within this paper that certain stakeholders (institutional in particular and possibly business) require additional and more personal interface. However, these organizations also tend to be forthcoming once interviewed and the contacts established in one innovation program can be used again at subsequent decision points in the program, or in other programs.

- 4) The process used within this paper to describe networks and to visualize the synthesis of stakeholders, issues and networks can be simplified or expanded based on the time and information available. Good research notes, a whiteboard, some colored pens, and a day or so of management attention could lend extensive insight to tough program prioritization decisions.

Its effectiveness?

- 5) The framework's strength is not definitive guidance; rather, it is the understanding of participants, issues and barriers to a particular national security innovation at a particular decision point. This understanding allows decision-makers to either: a) press forward and allocate resources; or b) assign those scarce resources to an alternate program. In the current national security environment, there is no shortage of good ideas or programs. The decision to apply scarce resources should therefore be applied at a point where a program can proceed efficiently—when the time is right.
- 6) The use of a static framework as a synthesis of stakeholders, issues, and networks at a particular point in time, responds to the bureaucratic process of U.S. national security decision-making. The overall process is arguably dynamic, but decisions are made at defined points based on budget submissions, calls for votes, signing of policy, and other significant events. The framework effectively allows decision-makers the best assessment of barriers and “right timing” at those points.

The NMD case study also provided insights regarding the national security decision-making participants and use of the Lens Framework:

- 7) The assertion that participants within the national security environment are often unaware of the differing, and often disparate, views regarding a particular innovation program proved true. This was particularly acute at the levels that deal with the program on a daily basis—and who advise more senior decision-makers. In the process of interviews and case-study research, it was evident that lack of awareness

- did not equate to a parallel lack of interest. In contrast, most interviewees embraced consideration of the viewpoints of other stakeholders. This lack of awareness can be traced to problems of access or constrained time and resources.
- 8) The commonly held belief that various stakeholders aggressively attempt to influence decisions or program outcome proved less evident. While it was obvious in case-study interviews that there was stakeholder commitment to program success, the desire to influence decision-making was actually far surpassed by a desire to inform, educate and present accurate analysis. This was true in institutional, business, political and opinion-making categories. In many cases, individuals resented the term “stakeholder,” despite explanation of the research definition, and preferred to be viewed in an “educate and inform the debate” role.
 - 9) Expectations regarding key issues or even key stakeholders are often wrong. For example, in the initial research, which occurred during the test periods for NMD systems, the technology issue appeared to carry significant weight and accounted for the preponderance of media, institutional, think tank, working group, and even Government Accounting Office articles and reports. Yet, in the final synthesis, it was obvious that technology readiness was only a “rationalization” issue, an issue to help support a decision preference based on other subordinate issues or concerns. This indicates that both fiscal and intellectual resources expended in detailed technical assessment and review (including the DRR), may have been better used elsewhere in the program.
 - 10) The importance of the decision point can also be questionable. The 2000-deployment decision for NMD still carries considerable print space and agenda consumption. Yet, regardless of the 2000 decision, NMD is expected by all stakeholders to continue forward at the same relative funding levels with only minor schedule variance and timing adjustment. In short, the 2000 decision does not appear crucial to NMD program continuation and may have little relative effect on the deployment date. On the other hand, the existence of a presumed decision point

appears to have stimulated considerable domestic and international dialogue on the strategic issue.

This research is an initial step in providing an effective framework for national security decision-making. In an environment ripe for innovation, we recommend continued research and case study to refine concepts and to make decisions regarding the implementation of programs that must concurrently adapt new technologies, organizational change, and new policies. In an environment of continuing resource decline (people as well as financial), decision-makers must make difficult choices – and they must make them at the right time. The ability to identify a program “whose time has come” will be critical to making the right choices. In using the “looking-glass” approach of the Lens Framework, policy-makers can make the right choices at the right time.

APPENDIX A: NMD ARCHITECTURE

The Ballistic Missile Defense Organization defines three levels of capability to meet three levels of threat: the C1 capability, capable of defending against a few unsophisticated reentry vehicles (RVs); C2, against a few sophisticated RVs; and C3, against many sophisticated RVs.¹ Table A-1 has a synopsis of the proposed architecture.

The C1 capability will likely employ a limited number of interceptors carrying kill vehicles that can home in on targets outside the atmosphere, using infrared optics for “hit-to-kill.” The current plan consists of one launch site, either in North Dakota or Alaska, collocated with a tracking radar. The C1 system will be upgraded by early warning radars at five locations and will rely on Defense Support Program (DSP) infrared satellites for launch detection and cueing. Over time, Space-Based Infrared System, High Component (SBIRS-High) satellites will replace DSP in this role. Initial battle management/command, control and communications (BMC3) will be performed at the strategic command complex in Cheyenne Mountain, Colorado.²

The C2 capability will employ more interceptors, additional tracking radars and various target discrimination and BMC3 upgrades. Additional launch sites are another possibility. Over time, SBIRS Low satellites capable of infrared tracking in the ascent trajectory phases will provide more advanced capability against enemy countermeasures. The C3 capability remains sketchy, but could involve sea- and space-based kill systems.³

Architecture	C1	C2	C3
IOC	2003	2005	2010-2015
Cost [non-add]	\$9-11B 1998-2003	\$13-14B 1998-2005	
Threat	simple penetration aids	sophisticated penetration aids	
	5 ICBMs with 5 warheads	5 ICBMs with 5 warheads + 20 decoys	20 ICBMs with 20 warheads + 100 decoys
Ground-Base interceptors (GBI)	20 Alaska	100 Alaska	125 Alaska 125 Grand Forks
Upgraded Early Warning Radars (UEWR)	Beale Clear Cape Cod Flyingdales Thule	Beale Clear Cape Cod Flyingdales Thule	Beale Clear Cape Cod Flyingdales Thule
X-Band Radars (XBR)	Shemya	Shemya Clear Flyingdales Thule	Shemya Clear Flyingdales Thule Beale Cape Cod Grand Forks Hawaii South Korea
Space Sensors	DSP SBIRS-High	DSP SBIRS-High SBIRS-Low	SBIRS-High SBIRS-Low
In-Flight Interceptor Communication Systems (IFICS)	Alaska Shemya AK Caribou ME	Alaska Shemya AK Caribou ME Munising MI	Alaska Shemya AK Caribou ME Munising MI Hawaii

Table A-1: Proposed NMD Architecture⁴

¹ David C. Gompert and Jeffrey Isaacson, "Planning a Ballistic Missile Defense System of Systems: An Adaptive Strategy," Issue Paper IP-181, (Washington, DC: Rand National Defense Research Institute, 1999). 1 Dec. 1999 < <http://www.rand.org/publications/IP/IP181/>;

² Gompert and Isaacson.

³ Gompert and Isaacson.

⁴ Derived from NMD Joint Program Office, "NMD Program Update to CBO," unclassified briefing, Washington, DC, 7 Jan. 2000, 9-12. Also from *National Missile Defense Page*. Federation of American Scientists. 4 Apr. 2000. < <http://www.fas.org/spp/starwars/program/nmd.htm>;

WORKS CONSULTED

Books and Articles on Innovation and Political Models

Allison, Graham, and Phillip Zelikow. *Essence of Decision: Explaining the Cuban Missile Crisis*. 2nd ed. New York: Longman, 1999.

Armacost, Michael H. *The Thor-Jupiter Controversy*. New York: Columbia University Press, 1969.

Beard, Edmund. *Developing the ICBM: A Study in Bureaucratic Politics*. New York: Columbia University Press, 1976.

Christensen, Clayton M., and Richard S. Rosenbloom. "Explaining the Attackers Advantage: The Technological Paradigms, Organizational Dynamics, and the Value Network." *Research Policy* (1995): 233-250.

Dye, Thomas R. *Who's Running America: The Reagan Years*. Englewood Cliffs, NJ: Prentice-Hall, 1983.

Dudney, Robert S. "Battle of the F-22." *Air Force Magazine*. Sept. 1999: 12-13.

Evangelista, Matthew. *Innovation and the Arms Race*. Ithaca, NY: Cornell University Press, 1988.

Evans, Peter B., Dietrich Rueschmeyer, and Theda Skocpol, eds. *Bringing the State Back In*. Cambridge: Cambridge University Press, 1987.

Halperin, Morton H. *Bureaucratic Politics and Foreign Policy*. Washington, DC: The Brookings Institution, 1974.

Hecl, Hugh. "Issue Networks and the Executive Establishment." *The New American Political System*. Ed. Anthony King. Washington, DC: American Enterprise Institute, 1979.

Hilsman, Roger. *The Politics of Policy Making in Defense and Foreign Affairs: Conceptual Models and Bureaucratic Politics*. 3rd ed. Englewood Cliffs, NJ: Prentice Hall, 1993.

Huntington, Samuel P. *The Common Defense: Strategic Programs in National Politics*. New York: Columbia University Press, 1961.

Kingdon, John W. *Agendas, Alternatives, and Public Policies*. 2nd ed. New York: Harper Collins, 1995.

Lewin, Kurt. *Field Theory in Social Science*. New York: Harper and Row, 1951.

MacRae, Jr., Duncan, and Dale Whittington. *Expert Advice for Policy Choice: Analysis and Discourse*. Georgetown University Press: Washington DC, 1997.

McDougall, Walter A. *The Heavens and the Earth: A Political History of the Space Age*. New York: Johns Hopkins University Press, 1997.

Pratt, Erik K. *Selling Strategic Defense: Interests, Ideologies, and the Arms Race*. Boulder, CO: Lynne Rienner, 1990.

Sapolsky, Harvey M. *the Polaris System Development: Bureaucratic and Programmatic Success in Government*. Cambridge: Harvard University Press, 1972.

Smith, Hedrick. *The Power Game: How Washington Works*. New York: Ballantine, 1988.

NMD Case Study – Selected Government Documents

106th Congress of the United States, *Congressional Record – Daily Digest*, Washington, DC 17 Mar. 1999. 1 Mar 2000 < <http://frwebgate2.access.gpo.gov/>; DOCID:cr17m99-5.

-- *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74.

-- “National Missile Defense Act of 1999 – Hon. Curt Weldon (Extension of Remarks),” *Congressional Record*, Washington DC 30 Jul. 1999: E1706. 4 Apr 2000. < <http://thomas.loc.gov/cgi-bin/query/D?r106:19:./temp/~r1061tAXvF;>.

-- *The Cochran-Inouye National Missile Defense Act of 1999*, Washington, DC, 18 May 1999. 1 Mar. 2000 < <http://thomas.loc.gov/cgi-bin/query/z?c106:H.R.4.ENR;>.

-- “A Dangerous Time for America – Hon. Bob Schaffer (Extension of Remarks),” *Congressional Record*, Washington DC 12 May 1999: E948. 4 Apr 2000. < <http://thomas.loc.gov/cgi-bin/query/C?r106:./temp/~r106NpxPmo;>.

-- “Declaration Policy of United States Concerning National Missile Defense Deployment - House of Representatives” *Congressional Record*, Washington, DC 20 May 1999: H3428. 1 Apr 2000 < <http://thomas.loc.gov/cgi-bin/query/D?r106:2:./temp/~r1066317ER:e7819;>.

Clinton, Bill. Letter to Representative Curt Weldon, *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74, 37.

The Commission to Assess the Ballistic Missile Threat to the United States. “Conclusion of the Commissioners.” *Executive Summary of the Report of the Commission to Assess the Ballistic Missile Threat to the United States (Unclassified)*. 15 Jul. 1998: IIA. 1 Feb. 2000 < <http://www.fas.org/irp/threat/bm-threat.htm>;

Kadish, Lt Gen Ron. Statement, Senate Armed Services Committee, Strategic Forces Subcommittee. Washington, DC, 28 Feb. 2000. 15 Mar. 2000, < http://www.senate.gov/~armed_services/statemnt/2000/000228rk.pdf;

National Security Council, White House talking points, *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74, 41.

NMD Joint Program Office. “NMD Program Update to CBO.” Unclassified briefing. Washington, DC, 7 Jan. 2000.

The Panel on Reducing Risk in BMD Flight Test Programs (The Welch Panel). “National Defense Review.” Briefing provided to the BMDO, Feb 2000.

Perry, William J. *Review of the United States Policy Toward North Korea: Findings and Recommendations*. Washington, DC: Department of State, 12 Oct. 1999. 28 Feb. 2000, < http://www.state.gov/www/regions/eap/991012_northkorea_rpt.html;

The State Department, cable on S.R. 257 to U.S. embassies, *Congressional Record- House*, 106th Congress, 1st Session, Vol. 145, No. 74, 38.

Treaty Between the United States of America and the Union of Soviet Socialist Republics on the Limitation of Anti-Ballistic Missile Systems, Article III, Moscow, 26 May 1972.

Walpole, Robert. “National Intelligence Officer Statement for the Record to the Senate Subcommittee on International Security, Proliferation, and Federal Services on the Ballistic Missile Threat to the United States.” 9 Feb. 2000.

The White House. *A National Security Strategy for a New Century*. Washington, DC: The White House, 1999.

NMD Case Study- Selected Articles

“Allies Have Important Role in ABM Treaty’s Future, White House Says.” *Inside the Pentagon* 23 Sep. 1999: 18-19.

“Analysis: U.S. Allies Split on Son of Star Wars.” *Reuters* 25 Nov. 1999.

“Beijing Calls on Washington to Scrap ABM Treaty Changes.” *Agenda France Presse* 8 Nov. 1999.

De France, Linda. “USAF Space Priorities: Missile Defense, GPS anti-Jam, EELV.” *Aerospace Daily* Feb. 28 2000: 305-306.

“Europeans Lukewarm on Need for U.S. National Missile Defense.” *Aerospace Daily* 2 Mar. 2000: 327-330.

Gertz, Bill. “Cohen Welcomes Test of Missile Defense.” *Washington Times* 4 Oct. 1999: 1.

Gompert, David C. and Jeffrey Isaacson. “Planning a Ballistic Missile Defense System of Systems: An Adaptive Strategy.” Issue Paper IP-181. Washington, DC: Rand National Defense Research Institute, 1999. 1 Dec. 1999 < <http://www.rand.org/publications/IP/IP181/>;

Gordon, Michael. “Russians Firmly Reject U.S. Plan to Reopen ABM Treaty.” *New York Times* 21 Oct. 1999: A1.

-- “An Offer on Missile Pact.” *New York Times* 17 Oct. 1999. 1 Mar. 2000 < <http://www.nytimes.com/library/world/global/102199us-russia-abm.html#1/>

Graham, Bradley. “US Missile Test is Latest In String of Successes.” *Washington Post* 4 Oct. 1999: A1.

Hall, Mimi, and Barbara Slavin. “U.S. Offers Russia Help on Radar System.” *USA Today* 18 Oct. 1999: A4.

Hostettler, John N. “Missile Defense-A Vision.” *AUSA News* March 2000: 22.

Kissinger, Henry. “Quick Fix on Missile Defense is Unwise and Dangerous.” *Houston Chronicle* 6 Feb. 2000, Outlook: 4.

Landay, Jonathan S. “US Missile Defense Drifting Off Target.” *The Christian Science Monitor* 26 Mar.1998: 2.

-- “Frowns from Abroad: Fallout from U.S. Anti-missile Success.” *Christian Science Monitor* 4 Oct. 1999: 1.

“Missile Talks Off Target.” *Anchorage Daily News* 23 Oct. 1999.

“A November Missile Defense.” *Wall Street Journal* 15 Feb. 2000. Review and Outlook.

Nunn, Sam, Brent Scowcroft, and Arnold Kanter. “A Deal With Russia on Arms Control?” *Boston Globe* 13 Sep. 1999: A13.

Pianin, Eric, and Roberto Suro. “Cost of Missile Shield Is Double Pentagon Estimate, CBO Says.” *Washington Post* 26 Apr. 2000, Final ed.: A10.

Pike, John. “Ballistic Missile Defense: Is the U.S. ‘Rushing to Failure.’” *Arms Control Today* April 1998: 3.

-- “National Missile Defense: Rushing to Failure.” *Journal of the Federation of American Scientists* Vol. 52, No. 6, November/December 1999. 4 Apr. 2000 < <http://www.fas.org/faspir/v52m6a.htm>;

Pollara. “The Public Perception of the Canadian Forces.” Public opinion poll. Dec. 1999.

“Problems Plague U.S. Missile Defense, Panel Says.” *Reuters* 14 Nov. 1999.

“Rep Weldon (R-PA) Sees Nothing ‘Earth-Shattering’ in Latest Welch Report.” *Defense Alert* 15 Nov. 99: 11-12.

“SECDEF: U.S. Missile Defense No Threat to NATO.” *Reuters* 29 Nov. 1999.

“Seven Democratic Senators Want President to Delay NMD Decision.” *Inside the Pentagon* 17 Feb 2000.

Stratfor. “National Missile Defenses: Fighting the Last War.” *Global Intelligence Update: Weekly Analysis*. Online Posting. 24 Jan. 2000. 25 Jan. 2000 < <http://www.stratfor.com/services/giu2000/012400.asp>;

“Treaty Talk Underscores Importance of North Dakota.” *Grand Forks Herald* 21 Oct. 1999.

“U.N. Opposes U.S. Plan for Anti-missile Defense.” *Reuters* 2 Dec. 1999.

NMD Case Study – Selected Conference Notes

Clawson, Patrick. Commentary notes. Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 3 Mar. 2000.

Green, Michael. Commentary notes. Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 3 Mar. 2000.

Holum, John D. “The President’s NMD Decision and U.S. Foreign Policy.” Remarks to the Conference on International Reactions to U.S. National and Theater Missile Defense Deployments. Stanford University. 3 Mar. 2000.

Slocombe, Walter B. “National Missile Defense Policy.” Remarks at the Statesmen’s Forum Center for Strategic and International Studies, Washington, DC. 5 Nov. 1999.

Yost, David. Commentary notes. Conference on International Reactions to U.S. National and Theater Missile Defense Deployments, Stanford University, 3 Mar. 2000.

NMD Case Study – Selected Web Sites

Congressional Information: <http://thomas.loc.gov>;

U.S. House of Representatives. 3 May 2000. < <http://www.house.gov>;

U.S. Senate. 3 May 2000. < <http://www.senate.gov>;

The Department of State. 3 May 2000. < <http://www.state.gov>;

Embassy Information: <http://www.embpage.org/> ;

International Search engine. <http://www.twics.com>;

Ballistic Missile Defense Office. 3 May 2000. < <http://www.acq.osd.mil/bmdo/bmdolink/html/bmdolink.html>;

U.S. Army. <http://www.army.mil>;

U.S. Air Force. <http://www.af.mil/news/speech/>;

Air University. <http://www.au.af.mil>

Rand Corporation. 3 May 2000. < <http://www.rand.org/>;

Claremont Institute. <http://www.claremont.org/>;

Heritage Foundation. 3 May 2000. < <http://www.heritage.org/>;

Federation of American Scientists. National Missile Defense Page website. 4 Apr. 2000. < <http://www.fas.org/spp/starwars/program/nmd.htm>;

Center for Strategic and International Studies (CSIS). 3 May 2000. < <http://www.csis.org/>;

The Brookings Institution. 3 May 2000. < <http://www.brook.edu/>;

High Frontier. 3May 2000. < <http://users.erols.com/hifront/>;

Boeing National Missile Defense Team. 23 Sep. 1999. < <http://ww1.boeing.com/news/feature/nmd/>;

MIT Lincoln Labs. 3 May 2000. < <http://www.ll.mit.edu/ST/space-based/>;

Sandia National Laboratories. 3 May 2000. < <http://www.sandia.gov/>;

National Defense University. <http://www.ndu.edu>;

Harvard University. <http://www.harvard.edu>

MIT. <http://www.mit.edu>

Stanford University. <http://www.stanford.edu>

Washington Post. 3 May 2000. < <http://www.washingtonpost.com/wp-srv/national/longterm/missiles/keystories.htm>;

NMD Case Study – Personal Interviews and Supporting Documentation

Personal Interviews were conducted with stakeholders from various organizations. Although we cannot list the individuals due to a non-attribution policy, we would like to thank the following organizations for their support:

USSPACECOM

AFSPACECOM

U.S. Air Force Staff

U.S. Army Staff

BMDO

NORAD

U.S. Congressional Representatives and Staff

Department of State

The Brookings Institution

The Rand Corporation

Center of Strategic and International Studies

The Council on Foreign Relations

The Boeing Corporation

Lockheed-Martin

Raytheon

GRCI

M.I.T Lincoln Labs

M.I.T

Stanford University (CISAC)

Georgetown University

Harvard University

Israeli Embassy

Washington Post

New York Times

DISTRIBUTION A:

Approved for public release; distribution is unlimited.

Air Force Fellows Program
Maxwell AFB, Al 36112