

# Executive Summary Backgrounder

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## The Operational Missile Defense Capability: A Historic Advance for the Defense of the American People

*Baker Spring*

The Bush Administration will soon declare that the United States has an operational capability to defend its territory against limited ballistic missile strikes. This is a historic achievement because the Bush Administration overcame severe obstacles to make ballistic missile defense a reality. It achieved this outcome by reevaluating relevant treaties and furthering military technology.

However, the threat remains. China has developed a whole new generation of mobile ICBMs capable of hitting the U.S., and hostile governments, such as North Korea and Iran, continue to develop and produce ballistic missiles capable of inflicting real damage upon American soil. In order to protect the U.S. from these threats, Congress should:

- **Continue** to improve on existing missile systems and interceptors;
- **Support** the development and deployment of sea-, land-, and space-based missile interceptors; and
- **Construct** a worldwide command and control system that ties together all the U.S. missile defense capabilities.

For almost 30 years, the federal government has maintained a military posture that left the American people vulnerable to ballistic missile attack, but this posture of vulnerability to missile attack will end when the President declares a ballistic missile defense for the American people to be operational. The earlier posture was the direct

result of a policy that defined the vulnerability of the American people to missile attack as a virtue. The policy was codified in the 1972 Anti-Ballistic Missile (ABM) Treaty with the former Soviet Union.

President George W. Bush's expected declaration of an operational capability to defend the American people against a limited ballistic missile attack is, therefore, a historic achievement. The federal government is now starting to meet its obligation to defend the American people to the best of its ability.

President Bush's success marks a cardinal victory for missile defense supporters, following a long and sometimes bitter struggle. President Ronald Reagan, recognizing the moral bankruptcy and ineffectiveness of the policy of vulnerability, ended the policy in 1983. However, his Administration and the first Bush Administration were unable to deploy a ballistic missile defense before President Bill Clinton restored the policy of vulnerability in 1993.

Congress terminated the policy again in 1999, and the current President Bush endorsed this decision by Congress in 2001. The difference with the

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current Administration, however, is that an initial missile defense capability will be declared operational and the American people will cease to be completely vulnerable to missile attack.

Missile defense supporters, as they look both back and ahead at this time of historic achievement, should recall the vision that President Reagan shared with the American people in 1983. It is a vision that transcends its era of confrontation with the Soviet Union and the Cold War

because it makes a clear commitment to the defense of the American people by advancing technology. This vision of an unshakeable commitment to defense and the need to advance technology should continue to drive missile defense supporters in the years ahead.

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## The Operational Missile Defense Capability: A Historic Advance for the Defense of the American People

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The Bush Administration has made great strides in ballistic missile defense for the United States by reevaluating relevant treaties and furthering military technology. However, the threat remains. China has developed a whole new generation of mobile ICBMs capable of hitting the U.S., and hostile governments, such as North Korea and Iran, continue to develop and produce ballistic missiles capable of inflicting real damage upon American soil. In order to protect the U.S. from these threats, Congress should:

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For almost 30 years, the federal government has maintained a military posture that left the American people vulnerable to ballistic missile attack. However, this posture of vulnerability to missile attack is about to end because the President will soon declare operational a ballistic missile defense for the American people. The earlier posture was the direct result of a policy that defined the vulnerability of the American people to missile attack as a virtue. The policy was codified in the 1972 Anti-Ballistic Missile (ABM) Treaty with the former Soviet Union.

President George W. Bush's expected declaration of

### Talking Points

- The Bush Administration should continue to pursue a global missile defense capability that will defend U.S. territory, U.S. friends and allies, and U.S. troops deployed abroad. This means expanding on the limited capabilities of the system President Bush will declare operational in the near future.
- The Department of Defense should expand the operational capability to include systems that shoot down ballistic missiles in their earliest, boost-phase stage of flight.
- The Missile Defense Agency should address the longer-term countermeasures capability. The best option is to deploy boost-phase interceptors in space.
- The MDA should continue expanding the flexible and adaptable command and control system to incorporate new sensors and interceptors into the overall defense.
- Congress should direct a new approach to develop boost-phase interceptors. The lead program for developing boost-phase interceptors is the Kinetic Energy Interceptor.

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President Bush's success marks a cardinal victory for missile defense supporters, following a long and sometimes bitter struggle. President Ronald Reagan, recognizing the moral bankruptcy and ineffectiveness of the policy of vulnerability, ended the policy in 1983.<sup>1</sup> However, his Administration and the first Bush Administration were unable to deploy a ballistic missile defense before President Bill Clinton restored the policy of vulnerability in 1993.<sup>2</sup>

Congress terminated the policy again in 1999,<sup>3</sup> and the current President Bush endorsed this decision by Congress in 2001.<sup>4</sup> The difference with the current Administration, however, is that an initial missile defense capability will be declared operational and the American people will cease to be completely vulnerable to missile attack.

It is not a moment too soon. While today's ballistic missile threat does not portend the kind of catastrophic attack once posed by the former Soviet Union, the likelihood of a very destructive missile attack is higher than it was during the Cold War. As detailed in the findings of the 1998 commission chaired by current Secretary of Defense Donald Rumsfeld, a larger number of states, some governed by unpredictable leaders, are obtaining ballistic missiles and the nuclear, chemical, and biological warheads to arm them.<sup>5</sup>

This rampant proliferation of ballistic missiles

and weapons of mass destruction makes the world less predictable and stable than it was during the Cold War. These threats include missiles like the North Korean Taepo Dong-2, the Chinese DF-41, and the Russian SS-27, whether launched deliberately or by accident.<sup>6</sup> Further, virtually all of today's missile powers are modernizing their arsenals. For example, press reports from early August indicate that North Korea is deploying new land-based and sea-based ballistic missiles based on a decommissioned Soviet missile.<sup>7</sup>

At the same time, the American people need to understand that the emerging operational capability for missile defense is very limited. An important purpose of the system is to provide a test bed for developing and improving missile defense capabilities. As a result, Congress will need to fund ongoing efforts to strengthen the system to the point that the U.S. achieves the more robust defense capability that the Bush Administration is seeking for the long term and that the nation needs.

For all the efforts of the current Bush Administration and the preceding Reagan Administration and Bush Administration, U.S. missile defense capabilities have lagged behind the threat. Further, the progress made in the past three and a half years can be reversed. It is time for supporters of missile defense in Congress and elsewhere to appreciate what has been achieved and look toward taking the next steps in fulfilling their commitment to defend the American people.

### **Overcoming the Substantive Arguments Against Missile Defenses**

It is difficult to overstate the effort required to

1. The White House, "President Reagan's Address to the Nation," March 23, 1983.
2. "Presidential Decision Directive/NSC-17," December 11, 1993, reprinted in Bill Gertz, *Betrayal: How the Clinton Administration Undermined American Security* (Washington, D.C.: Regnery, 1999), pp. 237-241.
3. The National Missile Defense Act of 1999, Public Law 106-38.
4. The White House, "Remarks by the President to Students and Faculty at National Defense University," May 1, 2001.
5. U.S. Department of Defense, "Executive Summary," in *Report of the Commission to Assess the Ballistic Missile Threat to the United States*, July 15, 1998.
6. For a comprehensive description of the global missile arsenal after the Cold War, see Jack Spencer, *The Ballistic Missile Threat Handbook* (Washington, D.C.: The Heritage Foundation, 2000).
7. Mark Trevelyan, "New N. Korea Missiles Said to Threaten U.S.," Reuters, August 3, 2004.

bring the U.S. missile defense program to where it is today. The current operational capability for countering limited ballistic missile strikes results from the abandonment of an entrenched policy, which was once an unchallengeable part of a Washington consensus.

Few things in this world are more difficult to change than an entrenched policy in Washington. Thus, it has taken more than 20 years to realize a goal that President Reagan established in 1983. Specifically, the earlier Washington consensus in favor of the policy of vulnerability rested on four broad arguments. Each of these arguments, therefore, represented a hurdle for missile defense proponents to overcome. This took both time and exhaustive effort. The four arguments against missile defenses were:

**Argument #1: There was no fundamental ideological difference between the U.S. and the Soviet Union.**

There is no denying that the debate over missile defense, both domestically in the U.S. and internationally in the West, was driven by ideological differences. It is not coincidental that opponents of missile defense in the West generally adhered to a larger foreign policy that sought to find accommodation with the Soviet Union and also tended to support socialist policies at home. These opponents tended to make arguments of moral equivalency between the democratic and free-market economic policies of the U.S. and the communist ideology of the former Soviet Union. For example, the historians Leslie Adler and Thomas Paterson are quoted stating that Soviet Communism was a “system proclaiming a humanistic ideology,” which “failed[ed] to live up to its ideal.”<sup>8</sup>

Further, this same group favored domestic policies that would have imposed greater government control on the economy and shrink the private sec-

tor both economically and socially. Ultimately, these policies sought to blur the distinctions between Western and Soviet domestic policies and were propped up by wildly inaccurate claims about the strength of the Soviet economy.<sup>9</sup> Clearly, those in favor of these policies were grouped on the liberal side of the ideological spectrum.

It is logical that liberals would oppose missile defense, insofar as they perceived it as a tool for confronting the Soviet Union. It represented to them a barrier to the triumph of the materialist dialectic that would submerge Western democratic and free-market principles under a dominant socialist ideological and political order. In short, liberals believed that the Soviets were “on the right side of history” and that the West should seek for itself a “soft landing” under this emerging socialist order.

The policy of vulnerability strengthened the liberal position in two ways. First, it carried the message for the West that resisting Soviet power was futile. Second, it sent a message to the Soviets that the West ultimately sought accommodation.

Conservatives supported the policies of individual liberty and market economies and did not accept the assertion that the Soviet system pointed to social progress. They accepted the ideological confrontation with the Soviet Union and wanted to prevail in this contest.

Conservatives therefore agreed with liberals that missile defense represented a tool for confronting the Soviet Union, as well as a means for confounding the Soviet strategy of relying on military threats to subdue the West. In the view of conservatives, the accumulation of military power was the Soviet Union’s strongest card in seeking to spread its ideology and project power. They saw high technology defense systems, including missile defenses, as an important means of addressing this Soviet strength.<sup>10</sup>

8. Leslie Adler and Thomas Paterson, as quoted in John Earl Haynes and Harvey Klehr, *In Denial: Historians, Communism & Espionage* (San Francisco: Encounter Books, 2003), p. 33.

9. For a brief description of the inaccurate claims about the strength of the Soviet economy, see Mona Charen, *Useful Idiots: How Liberals Got It Wrong in the Cold War and Still Blame America First* (Washington, D.C.: Regnery, 2003), pp. 97–106.

10. For example, see Lt. Gen. Daniel O. Graham, *High Frontier: A New National Strategy* (Washington, D.C.: High Frontier, 1982), pp. 21–25.

From today's perspective, after the collapse of Communism in 1989 and the Soviet Union in 1991, it is difficult to fathom that the liberal position was the dominant one in Washington from the late 1960s until the early 1980s. Clearly, the events of the late 1980s and early 1990s discredited the ideological underpinnings of the liberal opposition to missile defense. Nevertheless, the policy of vulnerability was so firmly entrenched that it would take another decade before the U.S. would be in a position to put even a limited missile defense system in place.

**Argument #2: A U.S. that is too powerful is a danger to the world.**

If ideological differences were at the core of the debate in the U.S. over missile defense, differing views regarding world politics ran a close second. Particularly at the outset of the Cold War, when the Soviet Union had yet to recover from the effects of World War II, some in the West warned against a U.S. that had accumulated too much power. They saw this earlier "unipolar world"—to use the term coined by Charles Krauthammer to describe today's world—as inherently unstable.<sup>11</sup> In this context, they saw U.S. vulnerability as an appropriate limit on its power.

In essence, this group quietly welcomed Soviet acquisition of atomic and thermonuclear weaponry as a counterbalance to U.S. power. For example, Michael E. Parrish wrote the following in 2001:

Who is to say that [Ted] Hall's decision and those of [Klaus] Fuchs, Morris Cohen, [Julius] Rosenberg, and the others who gave atomic secrets to the Soviets did not contribute significantly to what John Lewis Gaddis has called "the long peace" that

followed World War II? Would the United States have been as prudent in times of crisis in the absence of Soviet nuclear weapons? The world has not been a kinder and gentler place since the collapse of the Soviet Union and the dismantling of its sphere of influence in Eastern Europe.<sup>12</sup>

A ban on missile defenses served the same purpose. The policy of vulnerability to missile attack served to limit American military power for the remainder of the Cold War. The primary underlying assertion of the argument concerning the excess of American power was that missile defenses were destabilizing.

The assertion regarding instability was made on two levels. At the general level, the assertion was based on the need to drive U.S. strategic policy in the direction of guaranteeing the Soviet "second strike" capability.<sup>13</sup> A Soviet second strike capability meant the ability to destroy the U.S. At the technical level, it was based on an assessment that the deployment of missile defenses would create incentives for either the U.S. or Soviet Union to strike first with nuclear weapons in a crisis.<sup>14</sup>

As the earlier quote from Michael E. Parrish demonstrates, this same line of argument has reemerged in today's second unipolar world. Today, however, the debate is more focused on attacking the alleged policy of unilateralism by the Bush Administration and its clearly stated policy of preempting terrorist and rogue state attacks than on opposing missile defense.<sup>15</sup>

Supporters of missile defense, by contrast, did not harbor doubts about an excess of U.S. power. In fact, they sought the expansion of U.S. power—President Reagan referred to it as operating from a

11. Charles Krauthammer, *Democratic Realism: An American Foreign Policy for a Unipolar World* (Washington, D.C.: AEI Press, 2004).

12. Michael E. Parrish, as quoted in Haynes and Klehr, *In Denial*, p. 208.

13. The Arms Control Association has described in detail the various "paths to nuclear war" and the steps that it saw as necessary to close off these paths. Taken together, the recommendations of the Arms Control Association advocated using arms control to codify a guarantee to the Soviet Union that the U.S. would not challenge the Soviet second strike capability. See Arms Control Association, *Arms Control and National Security: An Introduction* (Washington, D.C.: Arms Control Association, 1989), pp. 7–15.

14. Steven J. Brams and D. Marc Kilgour, *Game Theory and National Security* (New York: Basil Blackwell, 1988), pp. 74–94.

position of strength—as necessary to preserving Western values and liberty.

While missile defense supporters were not advocating needlessly provocative or risky actions toward the Soviet Union, neither did they seek a permanent stalemate. They wanted to prevail. Further, they did not accept the underlying technical argument that missile defenses would create an incentive for a first strike and were destabilizing. Quite the opposite: They saw the policy of vulnerability and the absence of missile defenses as facilitating Soviet first strike options for destroying the U.S. retaliatory capacity.<sup>16</sup>

**Argument #3: Missile defenses would not work.**

This technological argument was based in large measure on an assertion that missile defenses had to provide a near-perfect defense to have any utility.<sup>17</sup> Moreover, this assertion, because it was made initially during the Cold War, came in the context of defending against a hypothetical large-scale Soviet missile strike. Clearly, missile defense opponents sought a standard of effectiveness for missile defense that was designed to be impossible to achieve.

Later, opponents offered more limited arguments regarding the ineffectiveness of missile defenses. In part, this shift resulted from the end of the Cold War and the focus on missile powers with capabilities far more limited than those of the

former Soviet Union. One such argument was that even emerging missile powers could confuse the missile defense with countermeasures.<sup>18</sup>

Missile defense proponents, of course, did not accept the argument that missile defenses had to achieve near-perfect capabilities.<sup>19</sup> As the Cold War came to an end, the first Bush Administration refocused the missile defense program inherited from the Reagan Administration to meet post-Cold War requirements under the name Global Protection Against Limited Strikes (GPALS). Through GPALS, it became apparent that missile defenses could be quite effective against less powerful missile powers than the Soviet Union.<sup>20</sup>

The experience of the Patriot missile duels with Iraqi Scuds during Operation Desert Storm served to confirm that limited missile defenses could have enormous benefits. The modified Patriot, which was not designed as a missile defense system, did not have a perfect record in downing Iraqi Scuds. Nevertheless, the Patriot defenses served to keep Israel out of the war and blocked the Iraqi government's attempt to use missile strikes against Israel as a means for splitting the coalition that opposed it.

Finally, missile defense proponents addressed the countermeasures argument by proposing to expand missile defense capabilities over time by fielding a layered missile defense system.<sup>21</sup> This more comprehensive system will intercept missiles in all three stages of flight: boost phase, midcourse

15. For a detailed description of the arguments against the Bush Administration's national security strategy, see Larry Korb, *Winning the Peace in the 21st Century, A Task Force Report of the Strategies for U.S. National Security Program*, Stanley Foundation, October 2003.

16. W. Bruce Weinrod, ed., *Arms Control Handbook: A Guide to the History, Arsenal and Issues of U.S.–Soviet Negotiations* (Washington, D.C.: The Heritage Foundation, 1987), p. 84.

17. U.S. Congress, Office of Technology Assessment, *SDI: Technology, Survivability and Software*, OTA–ISC–353, May 1988, at [www.wws.princeton.edu/~ota/disk2/1988/8837\\_n.html](http://www.wws.princeton.edu/~ota/disk2/1988/8837_n.html) (August 16, 2004).

18. Andrew M. Sessler *et al.*, *Countermeasures: A Technical Evaluation of the Operational Effectiveness of the Planned U.S. National Missile Defense System*, Union of Concerned Scientists, April 2000.

19. Kim R. Holmes, Ph.D., “The Strategic Defense Initiative: Myth and Reality,” Heritage Foundation *Background* No. 664, July 26, 1988, pp. 2–3.

20. U.S. Department of Defense, “Global Protection Against Limited Strikes (GPALS): Briefing on the Refocused Strategic Defense Initiative,” February 12, 1991.

21. U.S. Department of Defense, “Lt. Gen. Kadish Special Briefing on Missile Defense,” June 25, 2002, at [www.defenselink.mil/news/Jun2002/g020625-D6570C.html](http://www.defenselink.mil/news/Jun2002/g020625-D6570C.html) (July 1, 2002).

phase, and terminal phase. This layered defense is designed to provide a more robust capability for addressing the countermeasure threat. This is particularly the case with systems that include space-based boost-phase interceptors, which are capable of destroying ballistic missiles in flight before they can release decoys or other countermeasures.<sup>22</sup>

#### **Argument #4: Missile defenses undermine nuclear arms control.**

Missile defense opponents of almost every stripe strongly held the view that missile defenses and strategic nuclear arms control were incompatible.<sup>23</sup> This view was based on the assumption that missile defenses would lead inevitably to an arms race spurred by a dynamic where each increment of defense would be offset by an additional increment of offense and vice versa.

President Bush proved that the missile defense critics' assumption was erroneous in the course of 2001 and 2002. First, President Bush announced at the White House on December 13, 2001, that the U.S. was withdrawing from the ABM Treaty.<sup>24</sup> This step cleared the way for unfettered development and deployment of an effective missile defense system. Second, he signed a strategic nuclear arms reduction treaty with Russian President Vladimir Putin in Moscow on May 24, 2002.<sup>25</sup> This treaty will reduce the number of deployed strategic nuclear warheads on each side to between 1,700 and 2,200. This is down from Cold War highs of well in excess of 10,000 on each side.

### **Overcoming the Procedural Hurdles to Missile Defense**

If the substantive arguments against missile

defense were daunting obstacles for missile defense proponents, the procedural hurdles proved almost as daunting. These procedural obstacles served as the guardians of the established policy of purposeful U.S. vulnerability to missile attack. These procedural hurdles were:

#### **Hurdle #1: Voiding the ABM Treaty.**

The ABM Treaty was the most vexing obstacle to the development and deployment of an effective missile defense system. The treaty not only outlawed the deployment of an effective defense by limiting such defenses to a single site of 100 fixed, land-based interceptors and restricting the location and orientation of early warning radar, but also foreclosed the opportunity to investigate other options for missile defense by prohibiting even development and testing of such systems as sea-based and space-based defenses.<sup>26</sup>

As an effective obstacle to missile defense, it is important to understand that treaties are "the supreme Law of the Land" under Article VI of the Constitution. Dispensing with a treaty is therefore exceedingly difficult. A state may have the treaty nullified on the basis of rules established under standard international practice governing treaties or withdraw from it in accordance with the terms of the treaty itself.

Both approaches proved necessary to terminate the ABM Treaty. First, the Clinton Administration was required to find a replacement for the Soviet Union as the opposite party to the treaty, following the collapse of the Soviet Union in 1991.<sup>27</sup> Despite the relentless efforts of the Clinton Administration to find suitable replacements among the newly independent states formed out of the former

22. Gregory H. Canavan, Ph.D., *Missile Defense for the 21st Century* (Washington, D.C.: The Heritage Foundation, 2003), pp. 37–41.

23. U.S. Department of Defense, "Remarks by Secretary of Defense Robert S. McNamara Before United Press International Editors and Publishers," September 18, 1967, and McGeorge Bundy *et al.*, "The President's Choice: Stars Wars or Arms Control," *Foreign Affairs*, Vol. 63, No. 2 (Winter 1984/1985), pp. 264–278.

24. The White House, "Remarks by the President on National Missile Defense," December 13, 2001, at [www.whitehouse.gov/news/releases/2001/12/print/20011213-4.html](http://www.whitehouse.gov/news/releases/2001/12/print/20011213-4.html) (December 13, 2001).

25. The White House, "President Bush, Russian President Putin Sign Nuclear Arms Treaty," May 24, 2002, at [www.whitehouse.gov/news/releases/2002/05/print/20020524-10.html](http://www.whitehouse.gov/news/releases/2002/05/print/20020524-10.html) (May 24, 2002).

26. The single site limitation was imposed by a protocol that effectively amended the original treaty and was adopted in 1974.



Soviet Union, it fail to do so by the end of President Clinton's second term.

President Bush put the issue of the treaty's status to rest on December 13, 2001, when he announced that the U.S. would withdraw from the treaty in accordance with Article XV of the treaty.<sup>28</sup> The importance of President Bush's decision to the success of the missile defense program cannot be overstated. With the treaty in place, no effective missile defense of the U.S. would have been possible.

### **Hurdle #2: Obtaining authorizing legislation.**

Any significant defense program requires congressional authorization. While missile defense opponents in Congress allowed the authorization of limited missile defense research and development activities, they successfully blocked legislation authorizing the actual fielding of a missile defense system to protect U.S. territory.

That is, they were successful until 1999. In 1999, Congress enacted the National Missile Defense Act of 1999, authorizing the deployment of a national missile defense system "as soon as is technologically possible."<sup>29</sup>

### **Hurdle #3: Obtain adequate funding for the missile defense program.**

Missile defense opponents in Congress consistently sought to pare back funding for missile defense development and testing activities. For example, in 1993, the Clinton Administration decided to cut overall missile defense funding by more than 50 percent from levels recommended by the first Bush Administration.<sup>30</sup>

The current Bush Administration has increased funding for missile defense by significant amounts. The missile defense budget in fiscal year 2001 was somewhat more than \$5 billion. The Bush Administration's request for fiscal year 2005 is more than \$10 billion.<sup>31</sup> Further, Congress has generally increased funding for missile defense during the current Administration.<sup>32</sup>

### **The Initial Operational Capability: A Limited Defense**

Monumental efforts and achievements by their nature frequently do not yield immediate practical benefits. Rather, the practical benefits accrue over time. This is the case with missile defense because such systems cannot be developed and deployed on short notice, even with a clear mandate.

Given the enormous achievement of the Bush Administration in bringing the missile defense program to the point that an operational defense capability can be deployed, it is important for missile defense supporters to recognize that this achievement is perishable. This is because the initial operational capability is limited. The failure to improve and strengthen it will raise questions about the value of having it at all. The last time the U.S. fielded such a capability, in the mid-1970s, it was shut down almost immediately. This was because it became clear that the limited capability was not going to be improved and that the military and political value of having the system was open to question.

The lesson here is that missile defense proponents have no choice but to press forward with

27. David B. Rivkin, Jr., Lee A. Casey, and Darin Bartram, "The Collapse of the Soviet Union and the End of the 1972 Anti-Ballistic Missile Treaty: A Memorandum of Law," The Heritage Foundation, 1998.

28. The White House, "Remarks by the President on National Missile Defense," December 13, 2001, at [www.whitehouse.gov/news/releases/2001/12/print/20011213-4.html](http://www.whitehouse.gov/news/releases/2001/12/print/20011213-4.html) (December 13, 2001).

29. Public Law 106-38.

30. U.S. Department of Defense, *Report on the Bottom-Up Review*, October 1993, pp. 43-48.

31. Committee on Armed Services, U.S. House of Representatives, "House Armed Services Committee Approves Fiscal Year 2005 Defense Authorization Bill," May 13, 2004, p. 28, at [www.house.gov/hasc/pressreleases/2004/04-05-13markupsummary.pdf](http://www.house.gov/hasc/pressreleases/2004/04-05-13markupsummary.pdf) (August 19, 2004).

32. For synopsis of budget actions regarding the Missile Defense Agency, which constitutes roughly 90 percent of all missile defense spending, see Missile Defense Agency, "Historical Funding for MDA, FY85-05," at [www.acq.osd.mil/mda/mdalink/pdf/histfunds.pdf](http://www.acq.osd.mil/mda/mdalink/pdf/histfunds.pdf) (August 19, 2004).

additional numbers and kinds of missile defense systems. During the almost 30 years that the U.S. denied itself missile defenses, the missile threat was advancing. President Bush has brought the U.S. to the point that it is now catching up with the threat. The next step is to surpass the threat and limit the choices of those who would threaten the U.S. with missile attack.

The limited capability of the initial missile defense system is revealed by the fact that it is described as a “Test Bed.”<sup>33</sup> The purpose of the Test Bed is two-fold: It will provide the initial operational capability and the means to develop and test more effective defenses. Lieutenant General Ronald T. Kadish, former Missile Defense Agency (MDA) director, succinctly described the rationale behind this approach in congressional testimony this spring:

When we put [the ballistic missile defense] system on alert, we will have a capability that we currently do not have. In my opinion, a capability against even a single reentry vehicle has significant military utility. Even that modest defensive capability will help reduce the more immediate threats to our security and enhance our ability to defend our interests abroad. We also may cause adversaries of the United States to rethink their investments in ballistic missiles.<sup>34</sup>

The initial ballistic missile defense capability will consist of the following components:

- Up to 20 ground-based interceptors at Fort Greely, Alaska, and Vandenberg Air Force Base, California (with six interceptors in place at Fort Greely by the end of 2004);
- An upgraded Cobra Dane radar at Eareckson Air Station in Alaska;
- Upgraded early warning radar in California and the United Kingdom;
- Three BMD-capable Aegis cruisers with up to 10 SM–3 missiles to be available by the end of 2005; and
- Ten Aegis destroyers, modified with improved SPY–1 radars by the end of 2005 (with an additional five destroyers by 2006).<sup>35</sup>

The interceptors used in this initial capability are ground-based midcourse interceptors. They will be based in silos and can destroy incoming ballistic missiles during the midcourse stage of flight (when the missiles are in space).

Why the Bush Administration chose to place the initial interceptors in Alaska becomes clear when the location of the Alaska site is compared to the flight trajectories of the most likely near-term purposeful or accidental launches of long-range missiles against the U.S. (See Chart 1.) The comparison clearly shows that the Alaska site is optimized for countering North Korea’s long-range missile threat, which is the most immediate among the regimes most hostile to the U.S. According to testimony by former Director of Central Intelligence George Tenet before the Senate Intelligence Committee on February 24, the North Korean Taepo Dong–2, a long-range missile, is capable of delivering a nuclear warhead to U.S. territory and is ready for flight testing at any time.<sup>36</sup>

By the same token, the Alaska site is not optimized for countering the emerging Iranian missile threat. This is why augmenting the initial missile defense capability is necessary to catch up with and surpass the developing missile threat. Deploying additional interceptors and sensors located and oriented to address the Iranian threat is one of the means of addressing this problem.

33. Missile Defense Agency, “MDA Facts: Ground-Based Midcourse,” January 30, 2004, at [www.acq.osd.mil/mda/mdalink/pdf/gbm.pdf](http://www.acq.osd.mil/mda/mdalink/pdf/gbm.pdf) (August 20, 2004).

34. Missile Defense Agency, “Lieutenant General Ronald T. Kadish, USAF, Director, Missile Defense Agency, Missile Defense Program and Fiscal Year 2005 Budget,” Spring 2004, p. 6, at [www.acq.mil/mda/mdalink/pdf/spring04.pdf](http://www.acq.mil/mda/mdalink/pdf/spring04.pdf) (August 20, 2004).

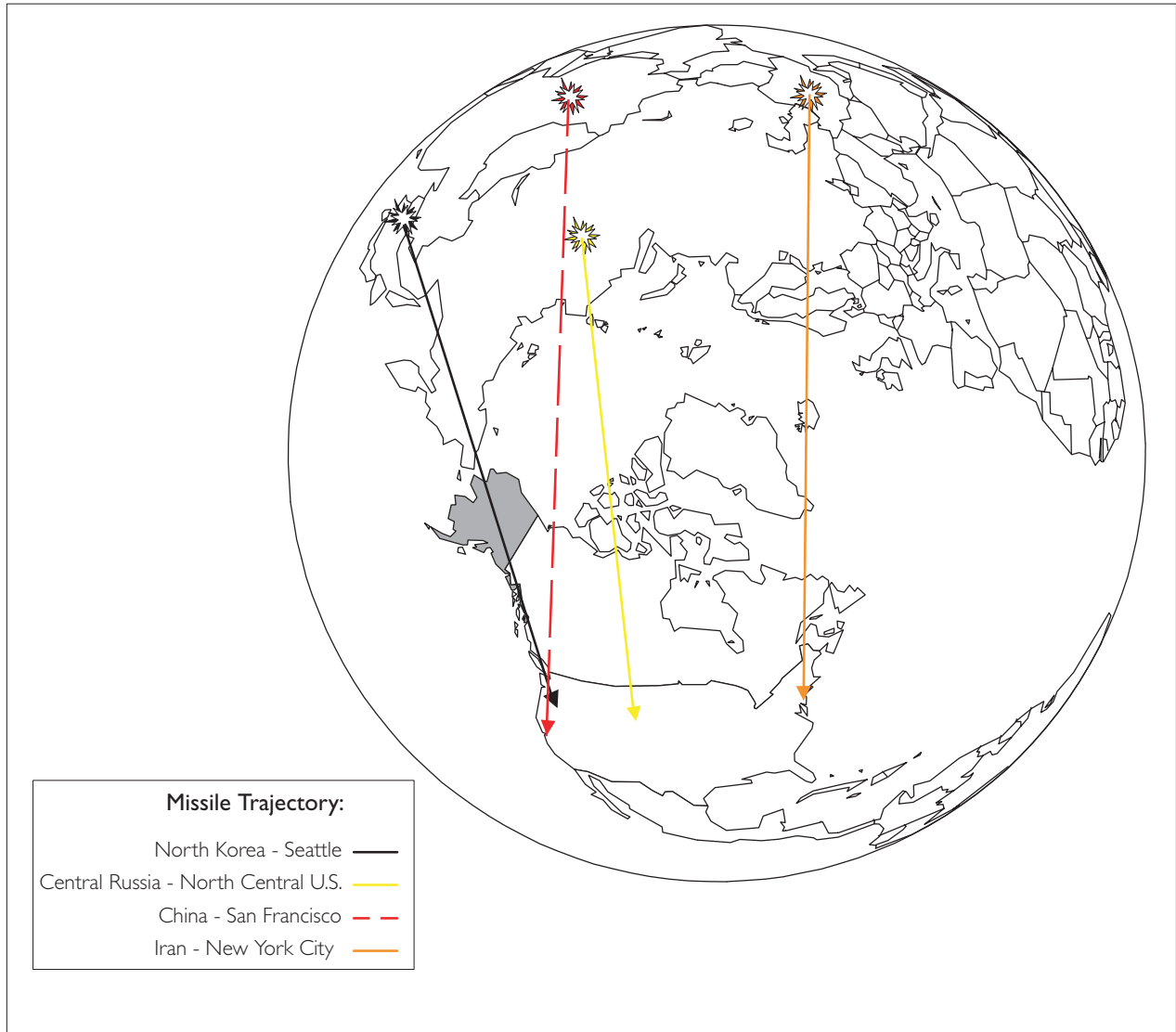
35. Missile Defense Agency, “Ballistic Missile Defense System: The Beginning,” at [www.acq.osd.mil/mda/mdalink/pdf/bmds-book.pdf](http://www.acq.osd.mil/mda/mdalink/pdf/bmds-book.pdf) (August 24, 2004).

36. George Tenet, “DCI’s Worldwide Threat Briefing,” February 24, 2004, p. 12, at [intelligence.senate.gov/0402hr/040224/tenet.pdf](http://intelligence.senate.gov/0402hr/040224/tenet.pdf) (August 25, 2004).

Chart 1

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## Likely Ballistic Missile Flight Trajectories



Source: Jack Spencer, *The Ballistic Missile Threat Handbook* (Washington, D.C.: The Heritage Foundation, 2000).

Further, the Alaska site is not designed to address the threat of shorter-range missiles launched from ships near the U.S. coast. This is why the initial capability will include three Aegis cruisers carrying 10 SM-3 interceptor missiles. These interceptors will give the military at least a

chance to counter this threat, which the 1998 Rumsfeld Commission cited as a serious concern.<sup>37</sup> These sea-based interceptors, along with the Patriot system for intercepting shorter-range missiles in the terminal phase of flight, can also defend U.S. friends and allies and U.S. troops

37. U.S. Department of Defense, "Executive Summary," pp. 20–21.

deployed abroad.

The primary qualitative shortcoming of the new operational capability is that while it includes mid-course and terminal-phase interceptors, it does not include interceptors capable of boost-phase intercepts. Boost-phase interceptors will allow the U.S. military to destroy ballistic missiles in flight before they can release individual warheads, decoys, and penetration aids designed to confuse or overwhelm the defense. Since ballistic missiles are launched in the direction of space and transit space on the way to their targets, the ideal location for boost-phase interceptors is in space. The existing missile defense program is not as aggressive as it could be in developing and deploying boost-phased interceptors in space.

### Directing Future Steps for the Missile Defense Program

If it is important that missile defense supporters understand what has been achieved as a result of past efforts and the immediate practical benefits of these successes, it is more important to have a clear vision of where the missile defense program should go from here. The Bush Administration understands that U.S. missile defense capabilities must extend beyond what it is now preparing to declare operational. Congress needs to keep this in mind.

At the conceptual level, the Bush Administration envisions a missile defense system that is capable of intercepting ballistic missiles in all three stages of flight and that protects U.S. territory, the territories of U.S. friends and allies, and U.S. troops deployed abroad. This visionary missile defense system is called a global layered defense. Congress should work to enact authorization and appropriations bills that support this vision. If this vision is not pursued, it is entirely possible that the nascent missile defense capability that the U.S. has in hand will prove stillborn. This is because the failure to move forward will result in the U.S. again falling behind the missile threat, and the system will be seen to have little utility.

Avoiding such an outcome will require the following specific actions:

#### Action #1: Continue to pursue the global missile defense capability.

The missile capabilities now in the hands of those that may threaten U.S. interests, as well as the ones that they are projected to have in the future, is a global capability. Several examples make the scope of the problem clear. Short-range missiles can target U.S. military forces deployed to the world's hot spots. Theater-range missiles can be used to threaten U.S. allies in important regions of the world. Long-range missiles can threaten U.S. territory.

This global capability to threaten the U.S. and its interests requires a global defense, which the Bush Administration is pursuing. It is not a capability that the U.S. has in hand with the system that will be declared operational. Such a global defense must consist of a variety of systems, some of which must be deployed on mobile platforms in order to respond to any emerging threat. Congress's best options for this kind of responsive defense are to:

- **Continue improving the existing Patriot PAC-3 missile for countering short-range missiles that threaten U.S. forces deployed abroad and U.S. allies.** This includes future systems derived from the Patriot, like the Medium Extended-Range Air Defense System (MEADS).
- **Support the Bush Administration's schedule to deploy sea-based missile defense interceptors on ships next year and, to the extent possible, expand and accelerate these deployments.** This system will be capable of protecting U.S. allies against short-range and intermediate-range missiles, as well as protecting U.S. territory against missiles launched from ships off the U.S. coast. The development effort for sea-based missile defense has been focused on creating a new Standard Missile-3 (SM-3). Congress could seek to expand the program by authorizing modifications to the existing SM-2 to give it a missile defense capability.<sup>38</sup> Finally, this sea-based defense should extend to countering long-range missiles.

- **Continue to develop the Terminal High Altitude Area Defense.** This system is optimized to provide U.S. friends and allies with a defense against theater-range missiles.
- **Complete the fielding of the Ground-Based Midcourse Defense interceptors in Alaska and California.** The Bush Administration plans to deploy 20 of these interceptors, which are designed to protect U.S. territory against long-range missiles. Following the completion of this plan, Congress should consider proposals for constructing a third site optimized to defend the eastern U.S. against missiles launched from the Middle East.
- **Construct a worldwide command and control system that ties together the various elements of U.S. missile defense capabilities.** Given the emerging ballistic missile capabilities of possible enemies of the U.S. and the necessary diversity of defensive systems that the U.S. is developing in response, the need arises for a flexible command and control system that will allow these far-flung assets to be directed against any specific threat that may emerge.
- **Intensify development of space-based interceptors.** Since ballistic missiles transit space, space is the ideal location for interceptors designed to destroy them. Congress needs to adopt legislation that instructs the Department of Defense to intensify and accelerate the development program for space-based interceptors. Such an effort begins with building on the Brilliant Pebbles program pursued by the first Bush Administration but canceled by the Clinton Administration in 1993.

**Action #2: Expand operational capability to include boost-phase defenses.**

The operational missile defense capability that President Bush is prepared to announce includes

interceptors able to destroy ballistic missiles in the midcourse and terminal stages of flight. This capability will not include a system that can destroy ballistic missiles in the boost phase. Boost-phase defenses are a critical part of the layered defense concept because they provide very broad areas of protection, an effective means for defeating countermeasures and taking more shots at the same target missile.

As a result, boost-phase interceptors should be added to the operational capability as soon as possible. The Bush Administration has three programs for developing boost-phase defenses. The first is the Airborne Laser (ABL), which is designed to mount an interceptor laser on a modified Boeing 747 airframe. Regrettably, the ABL program is experiencing technical problems, and the former director of MDA restructured the program.<sup>39</sup> The second program is the Kinetic Energy Interceptor (KEI). It is designed to build a surface-based interceptor for performing boost-phase intercepts. The KEI system will not be fully tested until between 2010 and 2011.<sup>40</sup> The final program is the development of a space-based interceptor test bed, but the MDA budget categorizes this activity as one for the 2012 time frame.<sup>41</sup>

Among these three options, the space-based interceptor holds the greatest potential.

**Action #3: Address the longer-term countermeasures capability.**

Critics of missile defense have long argued that missile defenses will not work because U.S. enemies can easily deploy missiles containing countermeasures to confuse or overwhelm the defense.<sup>42</sup> While these critics have overestimated the countermeasures capabilities of states like North Korea, the concern is appropriate because the countermeasures capabilities will advance in the years ahead.<sup>43</sup>

38. High Frontier, "Make Navy Missile Defense All It Can Be," *Strategic Issues Policy Brief*, May 10, 2004.

39. Missile Defense Agency, "Lieutenant General Ronald T. Kadish," pp. 18–19.

40. Missile Defense Agency, "Boost Phase Defense," at [www.acq.osd.mil/mda/mdalink/html/boost.html](http://www.acq.osd.mil/mda/mdalink/html/boost.html) (August 23, 2004).

41. Missile Defense Agency, "Fiscal Year (FY) 2005 Budget Estimates," February 2, 2004, p. 14.

42. Sessler *et al.*, Countermeasures.

The initial operational system will be able to provide only a limited defense against relatively rudimentary countermeasures that undeveloped states possess today. It will do so by using sensor capabilities to distinguish between real warheads and decoys and direct the interceptors against the real warheads during the midcourse stage of flight.

The best approach for addressing the longer-term countermeasures capability is to incorporate boost-phase defenses into the layered defense system. Boost-phase interceptors will destroy missiles in the earliest stage of flight, before they can release individual warheads and decoys. The best option for the deployment of boost-phase interceptors is in space.<sup>44</sup>

**Action #4: Expand the flexible and adaptable command and control system.**

Operating the various component systems of a global, layered missile defense structure as a “system of systems” requires a sophisticated and flexible command and control network. It must be sophisticated because the structure is required to destroy relatively small targets that travel at high rates of speed at great distances. The command and control network must be flexible because the component systems will be deployed in stages, and it must allow the use of select component systems to optimize the defense against any specific threat that may emerge in the future.

This means that Congress must insure that the command and control network is constructed in tandem with the development and deployment of the component systems, including both sensors and interceptors. It will be both expensive and time-consuming to retrofit the command and control network to accommodate new sensors and interceptors of varying types after they become available.

**Action #5: Undertake a new approach to develop boost-phase interceptors.**

Along with the ABL program, the lead program for developing boost-phase interceptors is the KEI.<sup>45</sup> The KEI requires an interceptor of sufficient velocity to intercept the target missile during the time that the target missile’s rocket motors are still burning. It appears that the approach in this program is to rely on a relatively large and powerful booster rocket to achieve the necessary velocity while carrying a relatively large and heavy kill vehicle.<sup>46</sup>

The better approach is to build a smaller and lighter kill vehicle that will allow the interceptor to achieve the necessary velocity with a relatively small booster. Such kill vehicle technology was developed during the Reagan and first Bush Administrations under the Brilliant Pebbles program.<sup>47</sup> This approach will also have direct application to the development of a very capable space-based interceptor.

The KEI program should be restructured to follow this alternative approach. Further, both the KEI program and its companion space-based interceptor program should be accelerated.

**Conclusion**

Missile defense supporters have much to be proud of with the Bush Administration’s impending declaration of an operational capability to defend the United States against missile attack. There were core principles at stake in this decades-long debate over whether to provide this protection to the American people. Certainly, President Bush should be commended for this achievement. Likewise, missile defense supporters must acknowledge how the Reagan Administration and first Bush Administration laid the foundation for

43. Lt. Gen. Ronald T. Kadish, USAF, “Missile Defense Deployment Briefing,” *Space Daily*, December 17, 2002.

44. Canavan, *Missile Defense for the 21st Century*, pp. 161–165.

45. Missile Defense Agency, “Boost Phase Defense.”

46. High Frontier, “Make Navy Missile Defense All It Can Be.”

47. For a description of how the current missile defense program may recapture Brilliant Pebbles technology, see Lowell Wood, Ph.D., “Ballistic Missile Defense from Space in the Early 21st Century,” presentation at Defending the Northeast, the Nation and America’s Allies from Ballistic Missile Attack conference, Institute for Foreign Policy Analysis, Valley Forge, Pa., June 28–29, 2001.

the missile defense program that allowed the current Bush Administration to reach this point.

This starts with recalling President Reagan's visionary call for missile defenses on March 23, 1983, in opposition to accepted orthodoxy at the time. It includes the first President Bush's February 1991 decision to restructure the missile defense program to adapt it to the requirements of the post-Cold War world under the GPALS program. The Rumsfeld Commission contributed to this success by reminding the American people that the missile threat to the United States remained, despite the collapse of the Soviet Union. Congress kept the program alive in the 1990s, despite the Clinton Administration's unrelenting hostility, and made the courageous decision to legislate a requirement to defend the American people with the enactment of the National Missile Defense Act of 1999.

Perhaps most of all, the American people should thank the scientists and engineers in the government, the national laboratories, and industry who persevered despite the obstacles put in their way by those who opposed missile defense as a matter of policy. They are the embodiment of the American can-do spirit, which seeks to overcome problems by embracing technological advancement.

However, despite the considerable achievement for missile defense supporters now at hand, they should not assume that the battle has been definitively won. Opponents of missile defense are only weakened. They have not gone away because, like missile defense supporters, they are acting on principle. The operational capability will be taken away from the American people if missile defense supporters in Congress and elsewhere fail to insist on improving and strengthening this initial and limited defense.

Missile defense supporters, as they look both back and ahead at this time of historic achievement, should recall the vision President Reagan shared with the American people in 1983. It is a vision that tran-

scends its era of confrontation with the Soviet Union and the Cold War and strengthens with age because of its commitment to the defense of the American people and its determination to advance technology.

It is this vision of an unshakeable commitment to defense and the need to advance technology that should continue to drive missile defense supporters in the years ahead. As President Reagan said:

Wouldn't it be better to save lives than to avenge them? Are we not capable of demonstrating our peaceful intentions by applying all our abilities and our ingenuity to achieving a truly lasting stability?

I think we are. Indeed we must.

\* \* \*

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

I know this is a formidable technical task; one that may not be accomplished before the end of this century. Yet, current technology has attained a level of sophistication where it is reasonable for us to begin this effort. It will take years, probably decades of effort on many fronts. There will be failures and setbacks, just as there will be successes and breakthroughs....

But isn't it worth every investment necessary to free the world from the threat of nuclear war? We know it is.<sup>48</sup>

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48. The White House, "President Reagan's Address to the Nation," March 23, 1983.

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