

**U.S. House of Representatives  
Committee on Oversight and Government Reform  
National Security and Foreign Affairs Subcommittee**

**Hearing on:**  
*What are the Prospects, What are the Costs?:  
Oversight of Missile Defense (Part 2)*

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*Prepared Testimony of*

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Thank you for inviting me to testify today. I applaud the committee for taking a hard look at the important issue of defending the United States against long-range missiles.

I will first discuss the prospects of building an effective defense against long-range missiles, and then the security costs to the United States of the systems it has been developing.

### **What are the Prospects?**

As you know, this year marks the 25<sup>th</sup> anniversary of President Reagan's famous "Star Wars" speech announcing his plan to develop a missile defense system that would make nuclear weapons "impotent and obsolete." His vision of a "shield that could protect us from nuclear missiles just as a roof protects a family from the rain" was appealing to many people. This was a time when the Soviets and the United States possessed 35,000 and 25,000 nuclear weapons, respectively.

The task now—defending against potential future North Korean or Iranian long-range missiles—is far less demanding than defending against thousands of incoming Soviet missiles.

Anti-missile technology has also come a long way in the past 25 years. Guidance and homing have improved so much that all current U.S. missile defense systems use "hit-to-kill" technology intended to destroy the incoming target by ramming into it. Previous defenses against long-range missiles were designed to use nuclear-tipped interceptors to destroy a warhead at a distance.

However, the United States is no closer today to being able to effectively defend against long-range ballistic missiles than it was 25 years ago.

Let's take a clear-eyed look at what 25 years have brought us.

The Pentagon has yet to demonstrate that the U.S. Ground-based Missile Defense (GMD) system is capable of defending against a long-range ballistic missile in a real-world situation. The tests have demonstrated that the kill vehicle is able to home on and collide with an identifiable target, but under highly scripted conditions. A February 2008 Government Accountability Office report concluded that these tests have been "developmental in nature, and do not provide sufficient realism" to assess the system's potential effectiveness.<sup>1</sup>

To permit deployment of the fledgling Ground-based Missile Defense system, the Missile Defense Agency (MDA) has not followed the normal accounting and testing procedures that apply to all other weapons systems. For example, the system does not comply with the "fly before you buy" law, designed to prevent the military from purchasing weapons that are unsuitable for their real-world mission or do not work as intended. Under this law, a major defense program may not produce more than a small number of weapons—generally for testing purposes—until the Pentagon's director of operational testing and evaluation issues a report stating whether the testing and evaluation was adequate and whether the results show that the weapon system is effective and suitable for combat. That will not be possible until the Pentagon conducts realistic tests, and that may be many years from now, if ever.

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<sup>1</sup> GAO, "Assessment of DOD Efforts to Enhance Missile Defense Capabilities and Oversight," February 26, 2008. [www.gao.gov/new.items/d08506f.pdf](http://www.gao.gov/new.items/d08506f.pdf)

To circumvent the rules, the MDA refers to the Ground-based Missile Defense components as “fielded” rather than “deployed,” and has claimed that they are “test assets” used as part of the test program.

Moreover, there is little or no prospect that the United States will develop a defense system that could defend against real-world long-range missiles in the foreseeable future. As a 2000 Union of Concerned Scientists-Massachusetts Institute of Technology technical report, “Countermeasures,” concluded, any country with the capability and motivation to build long-range missiles and fire them at the United States also would have the capability and motivation to equip those missiles with effective countermeasures, such as decoys.<sup>2</sup> That report assessed the National Missile Defense (NMD) system being planned at that time. The NMD system was in principle more capable than the GMD system is, since it included space-based infrared sensors as well as ground-based radars, so the conclusion of the report holds for the GMD system as well.

The availability of countermeasures was also discussed in the September 1999 National Intelligence Estimate on “Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015,” which stated:

“We assess that countries developing ballistic missiles would also develop various responses to U.S. theater and national defenses. Russia and China each have developed numerous countermeasures and probably are willing to sell the requisite technologies.

“Many countries, such as North Korea, Iran, and Iraq probably would rely initially on readily available technology—including separating RVs, spin-stabilized RVs, RV reorientation, radar absorbing material (RAM), booster fragmentation, low-power jammers, chaff, and simple (balloon) decoys—to develop penetration aids and countermeasures.

“These countries could develop countermeasures based on these technologies by the time they flight test their missiles.”

These reports make clear that countermeasures pose a fundamental problem for the GMD system at a conceptual level—not just at the technical level! An independent panel should have conducted a big picture review of the program at its inception, but it is not too late for such a review now. The members of such a panel should not be chosen on a partisan basis, but rather for their expertise and independent-mindedness. The JASON group would be ideal to undertake this task.

As the 1998 Rumsfeld Commission Report on the Ballistic Missile Threat emphasized: absence of evidence is not evidence of absence. It is important to remember that this applies to the development of countermeasures for missiles and not just the missiles themselves.

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<sup>2</sup> Andy Sessler, et. al., “Countermeasures,” (Union of Concerned Scientists, Cambridge MA) April 2000. [www.ucsusa.org/global\\_security/missile\\_defense/countermeasures.html](http://www.ucsusa.org/global_security/missile_defense/countermeasures.html).

The Missile Defense Agency has still not addressed the countermeasure problem. In Senate testimony on April 1, General Obering stated that MDA “conducted an integrated flight test last September involving a realistic target launched from Alaska.” However, the target included no countermeasures; General Obering is apparently defining a “realistic target” as one without countermeasures. General Obering went on to say “While the [GMD] system is developmental, it is available today to our leadership to meet real world threats.”

If MDA believes the GMD system has the ability to intercept targets with countermeasures, then it should demonstrate this through rigorous testing. Until then, Congress should provide no funding to purchase and deploy additional interceptors or radars.

It is also important that the Committee look into the current testing plans for the GMD system. When does the MDA plan to test against a threat using realistic countermeasures, and what are these countermeasures? When does MDA plan to test against a tumbling warhead? It would also be useful if Congress required MDA to set up an independent Red Team charged with developing and building simple but realistic countermeasures.

In addition, an independent review panel is also needed to review developments in the GMD system on an ongoing basis. Such a review could examine both past and current issues.

For example, one of the first fly-by tests, IFT-1A, was a “proof-of-concept” test intended to demonstrate that the infrared sensors on the kill vehicle could discriminate the warhead from decoys. However, the discrimination algorithm assumed detailed prior knowledge about the characteristics of the warhead and countermeasures—an unwarranted assumption. There have also been other ongoing questions about this test, which this Committee and an independent panel should look into as well.

A current issue that also merits review by this Committee is the capability of the proposed European Midcourse Radar (EMR). On April 1, in discussing long-range Iranian missiles, General Obering testified that the EMR would “provide critical midcourse tracking data on threats launched out of the Middle East.” However, recent technical analysis suggests that the radar’s range is too short to provide track data or discrimination for long-range missiles launched from the Middle East toward the United States.

### **What are the Costs?**

The pursuit of missile defenses against long-range missiles has been expensive, and entailed significant opportunity costs. However, the greatest costs are the security costs the United States continues to bear.

First, it is dangerous if military and political leaders believe the GMD system is effective. Such misinformation contributes to bad decision making. For example, if decisionmakers believed that the GMD system could reliably intercept ballistic missiles launched by North Korea, they might be less motivated to pursue diplomatic means to address the North Korean missile program. In a crisis, under the mistaken impression that its missile defenses could reliably stop incoming

missiles, U.S. leaders might take actions that make it more likely that an adversary would launch a missile attack.

It is not difficult to find examples in which the perceptions of high-level policy makers differed starkly from the technical assessment of experts who were more familiar with the details of a situation. A striking example is the explosion of the space shuttle Challenger in 1986. It is clear in retrospect that the technical experts who understood the space shuttle in detail knew that the unusually cold temperatures on the night of the launch represented a significant risk if the launch proceeded. But this was not understood by the high-level officials who made the decision to launch, and the result was disastrous. Some of these officials were certainly influenced by overstated claims of the shuttle's reliability.

Second, as long as the United States and Russia continue to maintain nuclear weapons to deter each other, any U.S. steps to deploy a defense system that Russia believes could intercept a significant number of its survivable long-range missile forces will undermine efforts to reduce nuclear threats. This link between offensive weapons and missile defenses was clearly demonstrated in the 1986 Reykjavik summit meeting, when President Reagan's adherence to missile defense scuttled an opportunity to pursue President Mikhail Gorbachev's offer to negotiate deep cuts in nuclear stockpiles. Ironically, missile defense precluded taking a real step toward achieving Reagan's goal of rendering nuclear weapons obsolete.

Today, the risk of a premeditated Russian or Chinese nuclear attack on the United States is essentially zero. But because Russia continues to maintain more than a thousand nuclear weapons on high alert (as does the United States), ready to be launched within a matter of minutes, there is still a danger of an accidental or unauthorized attack, or of a mistaken launch in response to a false warning. Indeed, such attacks are the only military threats that could destroy the United States as a functioning society.

Russia's incentive to maintain its weapons on alert would be strengthened if it believed the United States was deploying a system that could threaten its ability to retaliate. In fact, when the United States was trying to renegotiate the terms of the ABM treaty in the late 1990s, it argued that Russia need not fear a U.S. defense system as long as it kept its missiles on high alert.

China, meanwhile, has a very small arsenal of roughly 20 long-range missiles that it relies on for deterrence. However, it could decide to offset U.S. defense deployments by increasing its arsenal, which could in turn prompt India and then Pakistan to increase their nuclear arsenals.

On one level, the United States is aware of this linkage. It has stressed that its Ground-based Missile Defense system is intended to protect against potential future threats from developing countries, and has stated that deployments would be "limited" so that Russia and China would not see them as a threat to their nuclear deterrents. However, from Russia's and China's perspective, the issue is whether U.S. actions match its words.

In the coming years, the United States plans to increase the number of interceptors that are capable—at least in principle—of defending against long-range missiles. Congress has allocated funds for 40 Ground-based Missile Defense interceptors, to be deployed in Alaska and

California. The United States is negotiating with Poland and the Czech Republic to deploy an additional 10 Ground-based Missile Defense interceptors and one or two radars in Europe near the Russian border. Russia has strongly objected to this plan.

Within five years, the United States also is slated to deploy some 150 interceptor missiles on 18 ships as part of its Aegis missile defense system, which is designed to defend against intermediate-range ballistic missiles. However, the United States plans to produce an upgraded version of the interceptor to allow the Aegis system to defend against long-range missiles as well. Thus, Russia and China may worry that they could soon face some 200 U.S. interceptors designed to destroy long-range missiles.

Compared with China's 20 long-range nuclear-armed missiles, 200 interceptors constitute a relatively large deployment. While Russia has a far larger arsenal, it may assume that most of it would be destroyed by a U.S. first strike. While the scientists in these countries may understand that these interceptors can be defeated by straightforward countermeasures, worst-case analyses by political and military leaders, as well as a desire to have a visible response for both domestic and international audiences, may prompt both China and Russia to build or retain larger nuclear forces than they otherwise would, and may lead Russia to retain its missiles on high alert.

Again, I appreciate the opportunity to testify on this important issue. In summary, the GMD program offers no prospect of defending the United States from a real-world missile attack, and undermines efforts to eliminate the real nuclear threats to the United States.