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What Americans Need to Know About Missile Defense: We're Not There Yet

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In 33 minutes or less, life as we know it in America could end. That's how long it would take for an enemy ballistic missile launched from the other side of the world to hit the United States. If it carried and detonated a nuclear weapon high over the center of the country, the electromagnetic pulse (EMP) would literally fry the nation's electrical grid and all of the circuitry that powers our homes, businesses, hospitals, phones, cars, planes, traffic lights, ATMs, water supplies, and anything else not "hardened" against such attacks. The EMP Commission chairman has testified that, within just one year of such an attack, 70 percent to 90 percent of Americans would be dead from starvation and disease.¹

This is not science fiction. We know the devastating impact of a direct nuclear attack. We know the dire results from an EMP, thanks to U.S. and Soviet nuclear tests in the 1960s. Yet Washington policymakers still bicker over the need for defenses that make such weapons pointless. The Obama Administration has put on hold agreements that the U.S. signed with the Czech Republic and Poland to deploy missile defenses for Europe. The President is cutting missile defense spending by over \$1 billion even as he plans to spend a similar amount just to get "clunkers" off the road. He has decided not to deploy all of the ground-based interceptors already funded and to cancel programs that could enable us to destroy missiles very shortly after launch.

All of this makes no sense at the same time that North Korea is testing nuclear weapons and short- and long-range ballistic missiles to deliver them and

when Iran may be just one year away from producing its first nuclear weapon. Should these regimes succeed in gaining the capabilities they seek before we have deployed adequate missile defenses, they could hold America and the free world hostage merely by threatening an attack.

Washington's reluctance also makes little sense because Americans overwhelmingly support missile defense. The problem is that too many of us still think we already have all we need. We don't. Yes, we have made tremendous progress technologically in the past eight years, but there are portions of the United States that cannot be defended today against all threats.

Americans need to understand what defenses we have and what we still need. These answers to common questions aim to provide the basic facts. For additional information and arguments, please visit www.33minutes.org and our missile defense reader at www.heritage.org/research/missiledefense/upload/SDI_reader.pdf.

Question: Don't we already have all the missile defenses we need?

No. The truth is that the United States military today cannot protect all of our citizens or all of our

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www.heritage.org/Research/BallisticMissileDefense/wm2512.cfm

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territory—or, for that matter, all of our troops, allies, and friends abroad—from the range of possible ballistic missile attacks. Despite recent progress and technological advances, we do not yet have what we need. We probably could shoot down ten or so ballistic missiles launched from North Korea, or from Iran should it gain long-range capabilities, but not if they coordinated an attack. And we have no protection from Russia's or China's ballistic missiles or any short-range or Scud missiles launched from ships off our coast.

To shoot down ballistic missiles, especially shortly after launch to prevent the greatest loss of life and property, we need an array of defensive interceptors and radar systems on land, at sea, and in space. The Missile Defense Agency calls this an “integrated ballistic missile defense system.”²

Currently, we have 26 ground-based interceptors (GBIs) stationed in Alaska and California to defend against long-range missile attacks.³ The Missile Defense Agency expects to have 28 in place by the end of 2009. Regrettably, the President's budget eliminates plans to deploy 44 GBIs by 2011, which would enable us to defend against even more missiles and warheads. The U.S. Navy has equipped 21 Aegis warships with sea-based interceptors and long-range surveillance and tracking systems; many are stationed in the Pacific and the Sea of Japan. Their interceptors can take out short- and medium-range missiles in mid-flight. Equipping additional Aegis cruisers will enable us to patrol America's coasts as well.

Supporting all of our defenses are long-range or transportable radar systems located in California, the United Kingdom, Greenland, and Japan; an upgraded radar in the Aleutian Islands; and one that is being deployed in Israel. Because Iran's missiles can now reach portions of Europe and because of our treaty obligation to our allies there, we signed agreements in 2008 to station additional radar and interceptors in the Czech Republic and Poland, but

the Obama Administration has put these agreements on hold.

Obama's missile defense cuts also put promising boost-phase systems such as the Airborne Laser (ABL) on hold. Mounted on modified Boeing 747s, ABLs would enable us to knock down long-range missiles soon after launch, before the warheads could be deployed. Boost-phase defenses like this are precisely what we need to defend against nuclear-armed missiles.

Another defensive system falling by the budget wayside is the Multiple Kill Vehicle that could destroy multiple incoming warheads and decoys. It isn't fully developed yet, but there aren't any major issues standing in its way. The same can be said for the Space Tracking and Surveillance System (SSTS) sensor program that would help our defenders distinguish between real warheads and decoys in space that are meant to overwhelm our missile defenses.

Missile defense needs such capabilities to stay ahead of our enemies' game.

Question: Are we really at risk of missile attack?

Yes. Millions of Americans are at risk of attack from a growing number of states as well as non-state terrorist organizations. Today, there are nine states in the once-exclusive nuclear club, and Iran—with its hostile regime and its long record of supporting terrorists—is knocking at the door. Moreover, there are growing concerns that anti-American Islamist radicals in Pakistan might seize control of the government and its nuclear weapons.

In addition, 28 countries have ballistic missile capabilities. Some, with help from other states, are rapidly improving their arsenals. China has shown that it is capable of targeting U.S. satellites with ballistic missiles, destructive lasers, and EMP warheads. North Korea has over 1,000 missiles and is selling missiles and technology to other countries.⁴ It has tested over 25 missiles with ranges of up to

1. Kenneth R. Timmerman, “U.S. Intel: Iran Plans Nuclear Strike on U.S.,” July 28, 2008, at http://www.newsmax.com/timmerman/iran_nuclear_plan/2008/07/29/117217.html.

2. U.S. Department of Defense, Missile Defense Agency, “Testing: Building Confidence,” p. 6, at <http://www.mda.mil/mdalink/pdf/2009MDAbook.pdf>.

3. *Ibid.*, p. 7.

1,200 miles that could hit South Korea and Japan.⁵ It is working on a Taepodong-2 with a range of 3,000 to 3,700 miles that could one day hit Alaska and some parts of Hawaii if it functioned at its full capacity. As this paper is being written, many in Washington worry that North Korea may launch a long-range missile toward Hawaii on July 4th.

We know that Iran is one of North Korea's biggest customers for long-range ballistic missile technology. Tehran, which has tested over 35 missiles since 1998, has one of the largest ballistic missile inventories in the Middle East.⁶ Its last successful test this past May was of a multiple-stage surface-to-surface missile that could not only target Israel, but also reach parts of Europe.⁷ The U.S. Air Force National Air and Space Intelligence Center recently predicted that, at this pace and with sufficient foreign assistance, Iran may be able to threaten the United States with a missile strike by 2015.⁸ It also is test-launching missiles vertically from ships in harbors, suggesting that it might try to detonate a weapon in space to cause a destructive EMP attack.

The threat of an EMP attack is worrisome. As the EMP Commission reported in 2004, some countries "employ EMP as the primary or sole means of attack. Indeed, as recently as May 1999, during the NATO bombing of the former Yugoslavia, high-ranking members of the Russian Duma, meeting with a U.S. congressional delegation to discuss the Balkans conflict, raised the specter of a Russian EMP attack that would paralyze the United States."⁹ The commission also has pointed out that, because the U.S. is so heavily dependent on electronics and modern technology, EMP attacks may

be more appealing to terrorists and state actors who possess relatively unsophisticated missiles. The need to be able to shoot down any ballistic missile that threatens America or its allies is vital and increasing rapidly.

Question: What missile defenses do we still need?

The U.S. Constitution obligates the President and Congress to provide for the common defense. To fully protect America and its allies from missile attack, we need to continue expanding and restore and fully fund the Missile Defense Agency's budget. We need to continue improving our current ground-based, sea-based, and air-based capabilities. And we need to invest in current and future space-based technologies such as STSS and directed-energy weapons such as ABLs.

To protect our allies in Europe against Iran's long-range missiles, the Administration should fully implement our 2008 agreements with the Czech Republic and Poland as soon as their parliaments ratify them. We should also consider additional foreign sites for missile defense deployments to protect our allies, which would require additional funding from Congress.

Question: Do missile defenses really work?

Those who want to constrain missile defense spending until we can prove that systems "work" are implying that they do not now work. This is wrong. Since the December 2002 decision to pursue missile defense, the U.S. military has had a 97 percent testing success record.¹⁰ Of its 38 complete tests of current ground-based, sea-based, and air-based defensive systems, only one resulted in a "miss."

4. Reuters, "Factbox—North Korea's Missile Arsenal," June 18, 2009, at <http://www.reuters.com/article/latestCrisis/idUSSE094899>.
5. Jenny Shin, "Chronology of North Korea's Missile Flight Tests," Center for Defense Information, May 26, 2009, at <http://www.cdi.org/pdfs/NKmissiletimeline5.26.09.pdf>.
6. Iran Watch, "Iran Missile Milestones," updated April 2009, at <http://www.iranwatch.org/wmd/wponac-missilemilestones.htm>.
7. CNN, "Iran Tests New Surface-to-Surface Missile," updated May 20, 2009, at <http://www.cnn.com/2009/WORLD/meast/05/20/iran.missile.test/>.
8. Global Security Newswire, "Iran Could Put U.S. in Missile Range by 2015, Air Force Report Warns," June 10, 2009, at http://www.globalsecuritynewswire.org/gsn/nw_20090610_2876.php.
9. William R. Graham, Chairman, Commission to Assess the Threat to the United States from Electromagnetic Pulse (EMP) Attack, Statement before the House Armed Services Committee, July 10, 2008, at <http://www.empcommission.org/docs/GRAHAMtestimony10JULY2008.pdf>.

In 2008, we tested the system in a real-world scenario: We destroyed a malfunctioning satellite in space before it could come crashing down to earth.

Missile defense not only works, but works well. Our “hit-to-kill” systems using non-explosive interceptors can hit a missile within inches of where they are aimed. According to General “Trey” Obering, “we’ve gotten beyond being able to hit a bullet with a bullet. We are now able to hit a spot on a bullet with a bullet.”¹¹

Regrettably, the Missile Defense Agency under President Obama is beginning to slow all the progress we’ve made in developing even more effective defenses. It is adopting a spiral development strategy: We’ll build a little, then test a little, then build a little and test a little. This is unwise. Every day that the fielding of state-of-the-art missile defenses is delayed in this way is one more day that Americans and our allies stay vulnerable to attack.

Question: Isn’t the cost of missile defense prohibitive?

There are two ways to answer this question: We can compare what we have spent with other U.S. government expenditures, or we can compare it with the probable damage costs if one ballistic missile should get through.

Since 1985, the United States has invested about \$138 billion in missile defense—an average of \$5.8 billion or so per year. In 2008, the Missile Defense Agency invested over \$8 billion, or less than 1/70th of our total spending on defense.

To put these amounts in perspective, consider that the 9/11 attacks on New York City, which did

not involve a nuclear weapon, caused about \$83 billion in damages. In the first 12 months following the 9/11 attack, U.S. economic activity is estimated to have fallen by as much as \$225 billion. Or consider that the President plans to spend \$399 billion—\$1 billion per day—of the stimulus package in 2010 alone¹² and that he approved over 8,000 earmarked pork-barrel projects in his first spending bill last March that will cost \$7.6 billion.¹³ Such amounts dwarf our investment in critical missile defense systems.

The reality becomes even more worrisome when we consider that the President’s \$1.4 billion cuts in the Missile Defense Agency budget come even as the threat grows.¹⁴ Russia is upgrading its missile bases and positioning short-range missiles on its border with Poland to target U.S. defensive interceptors. China now has 1,500 missiles positioned on the shore opposite Taiwan. North Korea is testing missiles and conducting underground nuclear tests. Iran is testing newly modified long-range missiles and enriching uranium. Diplomacy is not lessening these threats. In fact, it may actually play into others’ hands as they try to drive wedges between the U.S. and its allies, lessen its influence in their regions, and dictate U.S. policy.

The President’s cuts make even less sense given that \$1.4 billion is a mere 0.04 percent of his total proposed federal budget, and the roughly \$10 billion we spend on missile defense each year amounts to only 13 percent of what local, state, and federal government agencies pay for first responders. It is quite small if we compare it to the cost of an attack: A study for the Department of Energy in

10. Missile Defense Advocacy Alliance, “U.S. Missile Defense Intercept Testing History (Since the U.S. Decision to Deploy in December 2002),” at <http://www.missiledefenseadvocacy.org/web/page/559/sectionid/559/pagelevel/1/interior.aspx>.

11. Agence France-Presse, “US Missile Chief to Obama: Anti-Missile System ‘Is Workable,’” November 12, 2008, at http://afp.google.com/article/ALeqM5iwuDjsP_k1wPhaN4Fui_UYh_AVWg.

12. Table 1, “Summary of Estimated Cost of the Conference Agreement for H.R. 1, the American Recovery and Reinvestment Act of 2009, as Posted on the Web Site of the House Committee on Rules,” attached to letter from Douglas W. Elmendorf, Director, Congressional Budget Office, to The Honorable Nancy Pelosi, Speaker, U.S. House of Representatives, February 13, 2009, at <http://www.cbo.gov/ftpdocs/99xx/doc9989/hr1conference.pdf>.

13. Steven Thomma and David Lightman, “Obama Decries Earmarks, Signs Law with 9,000 of Them,” McClatchey, March 11, 2009, at <http://www.mcclatchydc.com/homepage/story/63788.html>.

14. Robert M. Gates, U.S. Secretary of Defense, “Defense Budget Recommendation Statement,” April 6, 2009, at <http://www.defenselink.mil/speeches/speech.aspx?speechid=1341>.

2006 estimated that if just one 13-kiloton bomb hit New York City, cleanup and recovery costs could “approach the level of the entire U.S. gross domestic product in 2005...the entire output of the U.S. economy, every factory, store and business, for a full year.”¹⁵

Failing to protect ourselves could have consequences and costs that are immeasurably greater than the cost of missile defense.

Question: Won't we start a new arms race by insisting on missile defenses?

If anything, the opposite is likely: Missile defenses may actually *prevent* a new arms race. After years of negotiation and diplomacy, the arms race around the world has intensified, thanks primarily to the illicit proliferation of weapons and technologies by actors like Pakistan's father of nuclear weapons, A. Q. Khan, and states like Iran and North Korea that want greater regional influence and international “respect.”

Since missile defenses are entirely defensive, studies show that they actually have a stabilizing effect on an otherwise fragile security environment.¹⁶ Hostile countries will not invest in costly weapons that probably will not reach their targets. Any defenses that could destroy a ballistic missile in flight, particularly before it reaches space, take away the very reason our enemies want those missiles in the first place.

China and Russia, with their large missile arsenals, understand this. That's why they are pushing the U.S. to negotiate a new treaty, the Prevention of an Arms Race in Outer Space Treaty, which could be used to prevent us from deploying defenses in space. Collegially constraining our own defenses to keep others happy merely encourages them to move ahead at full speed with their own weapons programs.

Conclusion. Missile defense is not optional. It is morally, politically, economically, and technologically the right policy. It's time we demanded nothing less than America's best in missile defense.

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15. Pacific Northwest National Laboratory, “Thinking about the Unthinkable: Economic Consequences of a Nuclear Attack,” January 27, 2006, at http://energyenvironment.pnl.gov/staff/accomplishments_archive.asp?page=15.

16. Baker Spring, “Nuclear Games: A Tool for Examining Nuclear Stability in a Proliferated Setting,” Heritage Foundation Lecture No. 1066, March 11, 2008, at <http://www.heritage.org/Research/NationalSecurity/hl1066.cfm>.