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America Needs a 1-2-3 Plan for Missile Defense

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In a world of proliferating nuclear weapons and ballistic missiles, America and its allies and friends need a comprehensive missile defense system that protects people and vital interests from attack.

Deploying such a layered system would require three steps:

- Expand and continually improve the Navy's proven and popular sea-based Aegis missile defense system.
- Pursue and expand advanced integration of the various components of a layered missile defense system, including ground-based interceptors.
- Develop and deploy space-based missile defenses, particularly space-based interceptors, to counter ballistic missile attacks.

Missile Defenses Are Essential Components of an Effective Deterrent. The risk that America and its friends and allies could be attacked with a ballistic missile carrying nuclear weapons is substantial. Both Iran and North Korea are pursuing these capabilities, and North Korea has provided such technology to other hostile states like Syria. The nuclear and missile modernization programs of China and Russia and their efforts at the United Nations Security Council to block action on Iran contribute to growing concerns in Washington. The greatest risk stems from the possibility that nuclear weapons and the sophisticated means to deliver them may fall into the hands of terrorist organizations and other non-state actors.

One approach to confronting these risks is deterrence. By fielding nuclear retaliatory capabilities of their own, the U.S. and its allies could send the message that any attack would unleash retaliatory strikes against civilian and economic targets, often referred to as "soft targets." This is not a credible deterrent. There is a fundamental asymmetry of values between non-aggressive countries such as the U.S. and its allies and potentially aggressive actors such as China, Iran, North Korea, Russia, and terrorist organizations. The U.S. and its allies fundamentally value the well-being of their people, prosperity, and the preservation of liberty. Aggressive states fundamentally value power and the means to preserve it, such as internal repression and external intimidation.

With such asymmetry, the most effective deterrent is not the threat of attack. Instead, it is the capability to reduce and eliminate the likelihood of a successful attack on the U.S. and its allies. That requires a strategic force comprised of a balanced mix of offensive and defensive capabilities, including nuclear and conventional strategic weapons.

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The Three-Step Plan for Deploying Comprehensive Missile Defenses. With competent U.S. and international monitors predicting that Iran could have a nuclear weapon within a few years, the U.S. and its allies need to move forward with the development and deployment of a comprehensive, layered missile defense system. The Bush Administration took the initial steps by withdrawing the U.S. from the 1972 Anti-Ballistic Missile (ABM) Treaty with the Soviet Union, which had prohibited both the development and deployment of a defensive system, and fielding the initial elements of such a layered system on land and at sea.

The Obama Administration may have stepped back from the Bush Administration's program, but it has not abandoned the effort altogether. It has focused on expanding, albeit at a slow rate, the sea-based elements in particular. Looking forward, a three-step plan for developing and deploying all the necessary components is needed. The Independent Working Group on Missile Defense, the Space Relationship, & the Twenty-First Century released a report in 2009 that included these three steps:

1. Improve the Navy's Aegis-based missile defense system. The U.S. Navy's Aegis system, initially developed and deployed as an air defense system, has been modified successfully to make it capable of countering ballistic missiles. The system currently can shoot down short-range to intermediate-range ballistic missiles and detect and track ballistic missiles of all ranges. There are 24 Aegis-equipped ships in the U.S. Navy, with plans to expand to 32 by the end of 2013. Japan has upgraded some of its destroyers with Aegis capabilities.

There is ample opportunity to improve the Aegis system's capabilities. One option is to enable early models of the Standard Missile-3 (SM-3) interceptors to counter long-range ballistic missiles in the late midcourse stage of flight. The Administration wants to wait until 2020 to do this, as it is pursuing an entirely new model of

that missile. But even the existing SM-3 interceptor, called the Block I-A, is capable of defending against long-range missiles in the later stage of midcourse flight. It needs improved command and control features and interceptors tied to a forward-deployed radar.¹

The second opportunity is to improve the SM-3's ability to intercept short-range ballistic missiles in the ascent phase of flight. The interceptor demonstrated this basic capability in a 2002 test. It needs smaller and lighter "kill" vehicles to enable it to defend against short-range ballistic missiles carrying an electromagnetic pulse (EMP) warhead and launched from a ship off the U.S. coast.

2. Advance the integration of missile defense system components. A comprehensive, layered missile defense capability requires a network of systems with land, sea, air, and space capabilities. Two links in this network are the sensors that detect and track ballistic missiles in flight and the interceptors that destroy them. The third link is the command and control system that takes the essential targeting data furnished by the sensors and feeds that data to the interceptors in a timely fashion.

The sensors would need to be located throughout the world and in space, and the number of deployed interceptors—including Ground-Based Interceptors (GBIs) for countering long-range missiles—would need to be increased. The improved command and control system that makes this network of systems work would need to be distributed, permitting the delegation of launch authority to lower levels within the military hierarchy.

3. Develop and deploy space-based interceptors. All but the very shortest-range ballistic missiles travel through space. Thus, the most capable missile defense system would locate interceptors where the missiles would fly—in space. Under President George H. W. Bush, the United States

1. Vice Admiral J. D. Williams, USN (Ret.), "Improving Aegis Ballistic Missile Defense Command and Control," Heritage Foundation *Special Report* No. 89, May 2, 2011, at <http://www.heritage.org/Research/Reports/2011/05/Improving-Aegis-Ballistic-Missile-Defense-Command-and-Control>.

proposed a missile defense system called Global Protection Against Limited Strikes (GPALS) that included a constellation of space-based interceptors called Brilliant Pebbles. The Clinton Administration canceled GPALS and the Brilliant Pebbles program. Brilliant Pebbles technology could be revived, which would ultimately permit the deployment of space-based interceptors.

Three Steps to Protecting and Defending Against Ballistic Missiles. While the U.S. nuclear force and the accompanying policy of extended deterrence on behalf of U.S. allies remain essential to an effective deterrent, the conclusion that the U.S. and its allies should respond to these risks—not by defending themselves but by threatening nuclear retaliation against soft targets—will not serve as a credible deterrent.

It would be a simplification to say that missile defense is as easy as one-two-three. Nevertheless, this three-step plan would move the U.S. missile defense program in the direction of meeting America's comprehensive security demands in a world where the threats from proliferation and modernization of nuclear weapons and ballistic missiles are growing.

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