

Deploying a Campaign Promise by Matt Martin

[Back to Previous Page](#)

President Bush has announced that the United States will deploy an array of missile defense systems between 2004 and 2005. This declaration fulfills a campaign promise. However, the reality is that the three systems being rolled out all suffer from technological difficulties, cost overruns, and politics.

Senator Carl Levin, ranking member of the Senate Armed Services Committee, said recently missile defenses will be developed. The challenge now is "whether or not we are going to deploy a system which we take steps to assure will work." So far, that is little more than a wish. The latest Patriot short-range system (PAC-3), the sea-based Aegis cruiser configuration, and the former National Missile Defense component-now renamed the Ground-based Midcourse Defense (GMD) segment-have all suffered from significant technical difficulties and testing shortfalls.

Patriot PAC-3

The most mature missile defense system, the PAC-3 (Patriot Advanced Capacity-3), designed to intercept short- and medium-range ballistic missiles, has been put forward as a model of missile defense deployment by administration officials. Having finished its developmental testing (in cooperation with earlier generation PAC-2s) with an intercept record of 85%, it went on to have difficulties with the more advanced operational testing, scoring only a 40% intercept rate (again, in cooperation with PAC-2s). Despite this mediocre track record, the impending war against Iraq convinced US officials to move quickly to deploy Patriot batteries in the region.

While it is still too early to tell definitively, the Defense Department claims that Patriots made nine intercepts during the 2003 Iraq war, four with the newest PAC-3s. However, since all indications are that Iraq fired no Scud missiles, these intercepts were against slower and easier to hit targets. Moreover, Patriot systems are under investigation for destroying two Allied aircraft and targeting a third. Clearly, for the missile defense system furthest along in development, the Patriot systems are far from perfect. The Army has spent more than \$3 billion since the end of the first Gulf War to upgrade the Patriot system, and the PAC-3s cost about \$2.5 million apiece. The Pentagon plans to buy 100 more PAC-3s by the end of 2003.

Ground-based Midcourse Defense

The operationalization of the Pacific ground-based midcourse "test-bed" currently under construction is envisioned as the first step toward building a true national missile defense. According to a Defense Department press release, the goal is to place "20 ground-based interceptors capable of intercepting and destroying intercontinental ballistic missiles during the midcourse phase of flight located at Ft. Greely, Alaska (16 interceptors) and Vandenberg Air Force Base, Calif. (4 interceptors)" including "a new sea-based X-band radar."

There are several technical problems with this plan. First, the 20 interceptors do not exist. The Defense Department has been conducting developmental testing for this system using old Minuteman missiles as surrogate rockets, while they attempt to build a new rocket, which must be faster and lighter than the Minutemen. Problems with the construction of these rockets have forced the Defense Department to bring on a second contractor to "compete" with the first rocket contractor. The first shutdown integrating a new booster is not planned until this fall. Thus, there is no way to determine yet if the rockets work. The competition for a new booster has alone cost approximately \$450 million.

Second, the interceptor (the part that sits on the rocket and actually intercepts the oncoming missile) has reportedly been having some problems of its own. General Ronald Kadish, director of the Pentagon's Missile Defense Agency, said earlier this year that the latest intercept test last December failed due to a broken chip on a circuit board in the interceptor. It is not yet known whether this problem has been fixed.

Third, the sea-based X-band radar-an essential piece of the system-does not currently exist and is not expected to be integrated into the "test-bed" until 2005 at the earliest. The X-band radar is necessary to identify, discriminate, and track an incoming missile as it comes over the horizon and nears the interceptor. Without this component, the system will rely on older-generation radars with different capacities. Even when deployed, critics, including Senator Ted Stevens, chair of the Senate Appropriations Committee, have questioned the utility of positioning a 120-foot tall radar platform in open waters, where it will be vulnerable to ocean swells.

Finally, another key component, a new satellite system designed for early detection of an enemy missile launch, will not be in place for many years. The first test satellite is currently planned for 2006, with a second following in 2007. A full constellation of perhaps a dozen satellites will not be in place until 2010 or later. This program has undergone several setbacks, but is seen as crucial, and no substitute exists. Without this component, any system will rely on older satellites with limited capabilities, which in this case have already begun to outlive their expected lifespan.

Given these shortcomings, it is not surprising that the first intercept test is not planned for this "test-bed" until at least 2005. As a result, it is difficult to consider any deployment announcement little more than political posturing.

Sea-based Aegis Cruisers

The third system set to be deployed in the 2004-2005 timeframe is the short- to medium-range, sea-based Aegis cruiser platform, utilizing SM-3 (Standard Missile-3) missiles for interceptors. This is one of the newest missile defense systems, and has only recently begun any testing. While the initial tests have been successful, they have been carefully orchestrated and simplified. This is justified for a new, developmental system, but success in these tests does not indicate a readiness for deployment. The latest test last fall was the first of six planned for the Aegis system "test-bed" deployment, with the next test expected this spring or summer. The Aegis platform is early in its developmental testing stage, with many developmental and operational tests ahead.

With the current configuration, the Aegis platform can only be used against short-medium range targets. For a long-range capability, a new, faster missile-and likely a new launching platform-will be needed.

For the development and fielding of these systems, the Missile Defense Agency is requesting some \$8 billion for FY2004. When additional pieces are added in (deployed Patriot systems and new satellite development), the entire missile defense budget totals nearly \$10 billion for next year, with no sign of lower costs in coming years. In fact, in a new report to Congress, the Pentagon has announced that missile defense costs through 2009 will be \$19.5 billion more than the \$47.2 billion previously projected. Even with \$3.8 billion in reduced costs, the new figure comes to \$62.9 billion. Calculations of past missile defense spending estimates of approximately \$100 billion have already been spent since the 1980s.

President Bush has promised a missile defense system capable of defending the US, its deployed troops, and our allies from ballistic missiles by the next presidential election. What we are getting is a Patriot system that shoots down friendly aircraft, a "test-bed" that won't (and can't, since it doesn't exist) be tested until after it's deployed, and a sea-based short-medium range Aegis system in the earliest part of its testing phase.

Meanwhile, the missile defense budget, currently at nearly \$10 billion a year, continues to increase, while the

Missile Defense Agency's external accountability becomes less and less. The Defense Department got nearly a free pass at the most recent Congressional hearing on missile defense. Just one Democrat Senator attended, and the only hardball questions came from Senator Ted Stevens, a staunch missile defense supporter. Now that the administration has declared the war with Iraq over, Congress and the attentive public should turn its attention to issues concerning missile defense.

Matt Martin is assistant director of the Center for Arms Control and Non-Proliferation's Missile Defense Project. The Center has formed a Committee for Responsible Defense to advocate deployment of missile defenses only when they are shown to work under real conditions and only if they meet a real threat.

[Back to top](#)

Economists for Peace and Security
<http://www.epsusa.org>