

Shielded from Oversight

***The Disastrous US Approach
to Strategic Missile Defense***

<http://www.ucsusa.org/shieldedfromoversight>

Appendix 5: East Coast Missile
Defense Site

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To add capability to intercept a future ballistic missile threat from Iran, missile defense supporters in Congress are seeking to build a new interceptor deployment site for the Ground-based Midcourse Defense (GMD) system in the eastern United States. The site, which would host up to 60 interceptors in silos,¹ would be in addition to the two existing GMD interceptor sites on the West Coast, and cost at least \$3.6 billion to build and operate over the first five years.² The Pentagon has not included a third site in its budget requests nor has it made a decision that a new site is necessary, and the Missile Defense Agency (MDA) has stated repeatedly that the current GMD system provides defensive coverage for the entire homeland against limited long-range ballistic missile attacks from North Korea and projected future threats from Iran.³

However, Congress has taken an entrepreneurial approach, and pushed in recent years to build a third continental interceptor site for the GMD system on an accelerated timeline, with the House of Representatives adding hundreds of millions of dollars to the budget to jumpstart the effort.

At present, the Ground-based Midcourse Defense (GMD) system has interceptors fielded in two locations, Fort Greely, Alaska and Vandenberg Air Force Base, California. Current plans are to place Ground Based Interceptors (GBI) in 44 existing GMD missile silos at these fields by 2017. The proposed new site, designated

the Continental United States Interceptor Site (CIS) would use the same technology as at the other sites. However, the MDA is struggling to get the GMD technology working. And its leadership has repeatedly stated that it has higher priorities for its next dollar, including improving the system's reliability and its ability to identify the attacking warhead from among decoys.

The 2010 *Ballistic Missile Defense Review Report* asserted that the interceptors now deployed in Alaska and California gives the United States “a capability to counter the projected threat from North Korea and Iran for the foreseeable future,”⁴ and did not call for an additional site. The ground-based midcourse missile defense architecture recommended by the 2012 National Academies study on boost-phase missile defense does include an additional site, but as part of a system with new interceptors, sensors, and a concept of operations that entails a shoot-look-shoot strategy.

A third site does not by itself significantly improve the effectiveness of the GMD system; a new site with the same technology would not make the system more effective in intercepting incoming warheads as long as sufficient interceptor inventory exists to target all incoming warheads and all other objects that cannot be discriminated from the warheads, and the interceptors work effectively over long times of flight. While a shorter time of flight can provide some advantages, such as a margin of error for unexpected delays, the primary rationale for the new sites is to allow time for a shoot-look-shoot strategy. Shoot-look-shoot can improve efficiency, meaning the United States might be able to use fewer interceptors for the same number of warheads destroyed. For “shoot-look-shoot” to work, the GMD system must have sensor data available that can reliably assess whether a first intercept attempt succeeded or failed to destroy the incoming warheads.

¹ Missile Defense Agency (MDA). 2014. CIS public meeting handout. 14-MDA-7913. July 15. Online at www.mda.mil/global/documents/pdf/CIS_about_public_meeting.pdf. Note: All URLs in footnotes to this appendix were accessed May 18, 2016.

² Congressional Budget Office (CBO). 2012. *Cost Estimate. H.R. 4310, National Defense Authorization Act for Fiscal Year 2013*. Washington, DC. May 15. Online at www.cbo.gov/sites/default/files/112th-congress-2011-2012/costestimate/hr43101.pdf.

³ Undersecretary of Defense (Acquisition, Technology & Logistics). 2010. *Report to Congress on assessment of the Ground-Based Midcourse Defense element of the Ballistic Missile Defense System*. May. Online at www.hsdl.org/?view&did=14313.

⁴ Department of Defense (DOD). 2010. *Ballistic missile defense review report*. Washington, DC. February. Online at www.defense.gov/Portals/1/features/defenseReviews/BMDR/BMDR_as_of_26JAN10_0630_for_web.pdf.

History

In April 2012, the Subcommittee for Strategic Forces of the House Committee on Armed Services inserted language into the defense authorization bill that tasked the Missile Defense Agency to conduct a study to select an additional site for missile defense interceptors in the continental United States. It mandated the site to be operational by 2015 and earmarked \$100 million for its construction.

This project was not part of the Pentagon's budget nor was it in the Senate version of the bill. In the budget reconciliation process between the House and Senate bills, the 2015 timeline and \$100 million was eliminated, but \$30 million was added to the budget to fund a site study. Congress required⁵ the Secretary of Defense to study at least three sites (with a minimum of two on the East Coast) best suited for intercepting future Iranian and North Korean ballistic missiles. The study was to include an environmental impact statement for each site and a contingency plan for deployment of a new site.

The Pentagon demonstrated no enthusiasm for a third site, and did not ask for any money for it in the FY 2014 budget. (The environmental impact studies were funded in the previous year using reassigned money.) In March 2013, the House Armed Services Committee Chairman Rep. Buck McKeon (R-CA) and 18 other Republicans sent a letter to Defense Secretary Chuck Hagel, urging him to request "not less than \$250 million" for an East Coast site in the Pentagon's pending budget submission.⁶ The next month, 16 Republicans on the House Armed Services Committee sent a letter to the chair of the Subcommittee on Defense of the House Committee on Appropriations, urging the chair to appropriate \$250 million for the new site.⁷ Representative Mike Turner (R-OH), the chair of the

House Armed Services Committee Strategic Forces subcommittee, wrote a letter to President Barack Obama urging him to move ahead on the East Coast site.⁸

The Director of the MDA, Vice Admiral James Syring, when asked during his budget testimony, stated the \$250 million for a third site would not be of use to him at that time.⁹ In a letter to Senator Levin, he stated that "There is no validated military requirement to deploy an East Coast missile defense site."¹⁰ And further, he argued that more cost-effective and less expensive alternatives were available to improve the GMD, including improving sensors and the system's discrimination capabilities.

Despite this testimony, the House added \$140 million to the defense budget with a requirement that the Pentagon build a site by 2018, but the final authorization bill only provided \$20 million to support the site studies. In September 2013, the Pentagon announced the locations of five candidate sites, including:

- Fort Drum, New York;
- Camp Ethan Allen Training Site, Vermont;
- Naval Air Station Portsmouth Survival, Evasion, Resistance and Escape (SERE) School, Redington Township, Maine;
- Camp Ravenna Joint Military Training Center, Portage and Trumbull counties, Ohio; and
- Fort Custer Training Center, Augusta, Michigan.

By January 2014, the Vermont site was dropped from consideration, and in January 2016, the Missile Defense Agency announced that the site in Maine was no longer being considered,¹¹ leaving just the Michigan, Ohio, and New York sites continuing their site studies.

⁵ U.S. Congress. 2013. *National Defense Authorization Act for fiscal year 2013*. Public Law 112–239. January 2. Online at www.gpo.gov/fdsys/pkg/PLAW-112publ239/pdf/PLAW-112publ239.pdf.

⁶ Cappacio, T. 2013. Hagel pressed to add East Coast Missile defense site. *Bloomberg.com*, March 20. Online at <http://www.bloomberg.com/news/articles/2013-03-20/hagel-pressed-to-add-east-coast-missile-defense-site>.

⁷ Turner, M. 2013. 16 HASC members urge support of East Coast missile defense site funding appropriation, pledge to authorize in NDAA, April 30. Online at <https://turner.house.gov/media-center/press-releases/16-hasc-members-urge-support-of-east-coast-missile-site-funding>.

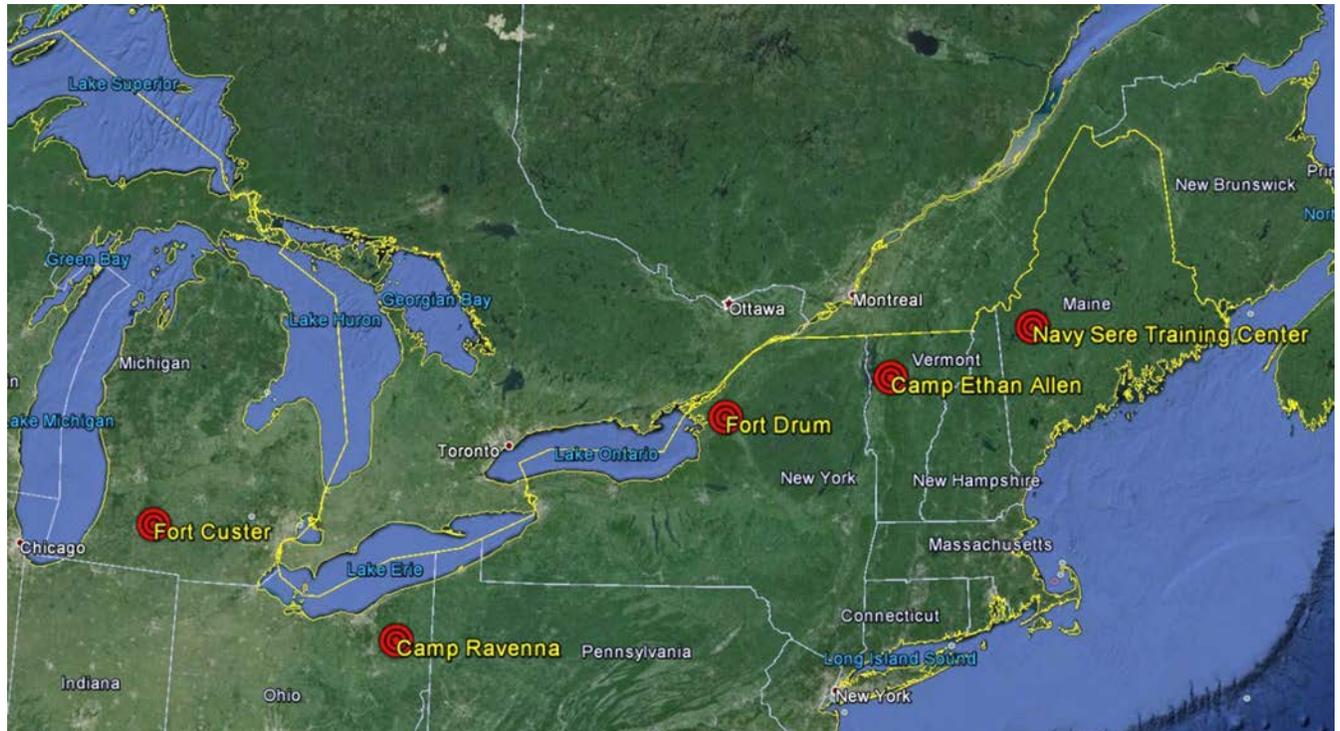
⁸ Turner, M. 2013. Turner: "Nation's missile defense isn't a bargaining chip," April 17. Online at <https://turner.house.gov/media-center/press-releases/turner-nation-s-missile-defense-isn-t-a-bargaining-chip>.

⁹ Syring, J. 2013. Testimony before the Subcommittee on Strategic Forces of the House Armed Services Committee. May 8. Online at www.gpo.gov/fdsys/pkg/CHRG-113hrg82459/pdf/CHRG-113hrg82459.pdf.

¹⁰ Capaccio, T. 2013. Pentagon, army say East Coast missile defense site not needed. *Bloomberg.com*, June 11. Online at <http://www.bloomberg.com/news/articles/2013-06-11/pentagon-army-say-east-coast-missile-defense-site-not-needed>.

¹¹ Missile Defense Agency (MDA). 2016. SERE East designated as alternative considered but not carried forward. Press release, January 15. Online at www.mda.mil/news/16news0001.html.

FIGURE 1. The original five proposed new sites are identified by red circles.



Congress continued to push the MDA to move ahead. The House added \$30 million to the FY 2016 budget for the effort, and the Senate Armed Services committee added a study of options to build the site in three years instead of five.¹²

The MDA and combatant commanders continued to state that the current interceptor sites are adequate, that they have other priorities, and are concerned that funding the East Coast site could adversely affect other efforts. At an April 2015 press briefing, Navy Admiral William Gortney, commander of the North American Aerospace Defense Command and U.S. Northern Command is reported as stating:

If I had one more dollar to do ballistic missile defense, I wouldn't put it against the East Coast missile site; I'd put it against those technologies

¹² Gruss, M. 2015. Congress more eager than DoD for East Coast interceptor site. *Space News*. June 8. Online at <http://spacenews.com/congress-more-eager-than-dod-for-east-coast-interceptor-site/>.

that allow us to get to the correct side of the cost curve in the ballistic missile defense.¹³

In May, Vice Chairman of the Joint Chiefs Admiral Winnefeld stated concerns:

A decision to construct the new site would come at significant material development and service sustainment cost. So we need to be careful.¹⁴

Despite their feedback, the 2016 defense budget allocated \$30 million for the development of a CIS. Additionally, the FY 2016 National Defense Authorization Act¹⁵ gave 30 days after the completion of the draft environmental impact statements for the Director of the Missile Defense Agency to designate a preferred site and required the Secretary of Defense to

¹³ Gruss 2015.

¹⁴ Gruss 2015.

¹⁵ GovTrack.US. 2015. *S. 1356 National Defense Authorization Act for Fiscal Year 2016*. Online at www.govtrack.us/congress/bills/114/s1356.

submit, also within those 30 days, a plan to expedite deployment of the site by two years, including an assessment of the costs, risks, and deviation from sound acquisition practices of that expedited plan. The comptroller general must review the Secretary's plan within ninety days and make recommendations.

The Rationale

The Pentagon has not initiated the push for the new interceptor site. What is the rationale given by House members and other supporters? It appears to be threefold: 1) to provide protection from long-range Iranian ballistic missiles that might materialize in the future for parts of the United States not adequately covered by the two current GBI sites, 2) to provide increased opportunity for a shoot-look-shoot strategy, or 3) to simply add more interceptors.

COVERAGE FOR THE EASTERN AND SOUTHERN UNITED STATES

While Iran is “politically” east of the United States, geometrically the shortest path from Iran to the continental U.S. United States is north on a great circle route.

The Missile Defense Agency has stated repeatedly that the entire continental United States is protected by the interceptors at Fort Greely, Alaska and Vandenberg Air Force Base in California. Setting aside the effectiveness of the interceptors, the kinematics—the ability of an interceptor to get to the right place at the right time—permit an interceptor with a 7 km/s burnout speed to reach an Iranian missile launched at any part of the continental United States, even if the trajectory were lofted or depressed. This nominal burnout speed is likely slower than the actual GBI speed, meaning that the GBIs actually have greater reach than that indicated by a 7 km/s speed.

SHOOT-LOOK-SHOOT

Another reason proponents give for an additional GMD site in the eastern United States is to increase the amount of time during target missiles' flight that the GMD system can engage the enemy missiles—the “battlespace” — compared to the time allowed for interceptors launched from the Alaska site. As much time as possible is desired so that the GMD system can take a shot, look to see if the incoming missiles were hit, and then shoot again if they weren't. Because the reliability of the interceptors is low, current strategy calls for multiple (likely four) interceptors to be sent to intercept each potential target before knowing the outcome of the first intercept attempt. Because using multiple interceptors per target could rapidly deplete the interceptor inventory, especially in the presence of credible decoys that the GMD determines must be engaged, a shoot-look-shoot strategy is advantageous.

Shoot-look-shoot would not make the GMD more effective than the current strategy of shoot-shoot-shoot-shoot. It could simply make it more *efficient* in that the United States might be able to use fewer interceptors against each target. This requires both that the United States has sensors in place for the “look” part of the strategy and sufficient confidence in the interceptors to want to conserve them rather than launch them all. With a strategy of four interceptors per target and no “looking” in between shots; the planned inventory of 44 interceptors would then be sized for a raid of 11 simple targets. In theory, a shoot-look-shoot strategy that allowed the “shot doctrine” to reduce to an average of 2-on-1 targeting would increase the number of engageable targets by a factor of two, to 22 targets.

However, this strategy to improve efficiency improves the outcome only marginally under the conditions that are much more likely: the incoming warhead is accompanied by credible decoys that are difficult or impossible for the defense to distinguish from the warhead. In that case, there could be many more targets than the interceptor inventory could handle and the defense would be defeated.

To reduce the likelihood of such a defeat, the Director of the Missile Defense Agency identified more cost-effective alternatives to strengthen the U.S. missile defense system, such as improving the system's sensors and its ability to discriminate targets from decoys.