



Missile Defense Advocacy Alliance Issue Brief for the 114th Congress **Ground-Based Midcourse Defense Modernization**



Background

Two key programs will contribute to the modernization of the Ground Based Midcourse Defense System (GMD), the Long Range Discrimination Radar (LRDR) and the next generation Exoatmospheric Kill Vehicle (EKV). The LRDR seeks to address an issue many critics focus on as a weakness of GMD, which is its ability to discriminate an incoming warhead from decoys or other objects in a threat cloud. The next generation EKV will be given a new communications package that will allow multiple interceptors to communicate with each other to confirm a successful engagement. This will allow the system to lower the “shot doctrine”, or the number of interceptors needed to successfully destroy an incoming warhead. The new EKV will also be more easily produced. Current generation interceptors are essentially hand-made, a delicate process inviting the possibility of error. Making the interceptors more modular and easily “produceable” will improve their reliability. The first step in modernization is to re-configure the current inventory of CE-II kill vehicles to replicate the specifications used for the successful June 22nd 2014 test. The second step would be to eventually replace the CE-I kill vehicles with the re-designed EKV.

Recent Developments

- **February 2015** The FY2016 MDA budget request calls for **\$279 million** to continue work on a redesign of the current kill vehicle, lead by MDA, that will be the basis for a competition to produce a new kill vehicle by 2018. The FY16 budget request also calls for **\$138 million** to continue development of the LRDR.
- **December 2014** The FY 2015 version of the National Defense Authorization Act added **\$40 million** to the President’s request for reliability and maintenance improvements for GMD.
- **June 2014** The Missile Defense Agency conducted a successful test of the GMD system (FTG-06b). The test was carried out in a threat-representative environment and utilized components from across the entire ballistic missile defense system including Aegis BMD ships, the Sea-Based X-Band Radar, and C2BMC command, control elements. FTG-06b was the first successful test of the CE-II kill vehicle.



Issues for Congress

1. This past April, the Department of Defense issued a report outlining the impact of sequestration level funding on the defense budget. The report details “significant cuts to forces, modernization, and readiness” across all services and programs. The report identified the Long Range Discrimination Radar (LRDR) and the next generation Exoatmospheric Kill Vehicle (EKV) among the potential casualties should sequestration return in FY2016.
 - a. The return of sequestration in FY16 will put these programs in jeopardy and undercut the momentum that GMD gained in its successful test on June 22, 2014.
 - b. These new programs are essential in making the only system capable of defending the nation from a long-range ballistic missile attack even more effective and reliable.
2. This summer’s successful test highlights the importance of maintaining a steady and rigorous testing regimen.
 - a. Testing demonstrates reliability and increases confidence in the system among U.S. strategic decision makers and allows operators to test techniques and procedures.
 - b. Testing also enhances deterrent value of the system by demonstrating its effectiveness to potential adversaries, dis-incentivizing investment in long-range missile development.