
DEPARTMENT OF DEFENSE

Office of the Secretary

Record of Decision to Develop, Test, Deploy, and Plan for Decommissioning of the Ballistic Missile Defense System

AGENCY: Missile Defense Agency, Department of Defense

ACTION: Notice

I. SUMMARY: The Missile Defense Agency (MDA) is issuing this Record of Decision (ROD) to develop, test, deploy, and plan for decommissioning of the Ballistic Missile Defense System (BMDS). This decision includes the development, testing, deployment, and planning for decommissioning of land-, sea- and air-based platforms for BMDS weapons components and space-based sensors. This action will enable MDA to develop and field an integrated, layered, BMDS to defend the United States (U.S.), its deployed forces, allies, and friends against all ranges of enemy ballistic missiles in all phases of flight. The BMDS is a key component of U.S. policy for addressing ballistic missile threats worldwide.

II. FOR FURTHER INFORMATION CONTACT: For further information on the BMDS Programmatic Environmental Impact Statement (PEIS) or this ROD please contact Mr. Rick Lehner, MDA Director of Public Affairs at (703) 697-8997. Downloadable electronic versions of the Final PEIS and ROD are available on the MDA public access Internet web site <http://www.mda.mil/mdalink/html/enviro.html>. Public reading copies of the Final PEIS and the ROD are available for review at the following public libraries:

- Anchorage Municipal Library (Anchorage, AK)
- Mountain View Branch Library (Anchorage, AK)
- California State Library (Sacramento, CA)
- Sacramento Public Library (Sacramento, CA)
- Hawaii State Library (Honolulu, HI)
- University of Hawaii at Manoa (Honolulu, HI)
- Arlington County Public Library, Central Branch (Arlington, VA)
- District of Columbia Public Library, Central Branch (Washington, DC)

III. SUPPLEMENTAL INFORMATION:

A. MDA Decision

The MDA is issuing this ROD, selecting Alternative 1 as described in the BMDS PEIS, to develop, test, deploy, and plan for decommissioning of the BMDS. This decision includes the development, testing, deployment, and planning for decommissioning of land-, sea-, and air-based platforms for BMDS weapons components. Alternative 1 also includes space-based sensors. MDA is deferring a decision on the development, testing, and deployment of space-based interceptors (Alternative 2) pending further concept development and policy discussion.

B. Background

The MDA has a requirement to develop, test, deploy, and prepare for decommissioning the BMDS to protect the U.S., its deployed forces, friends, and allies from ballistic missile threats. The proposed action would provide an integrated BMDS using existing infrastructure and capabilities, when feasible, as well as emerging and new technologies, to meet current and evolving threats in support of the MDA's mission. Consequently, the BMDS would be a layered system of defensive weapons, sensors, command and control, battle management, and communications (C2BMC), and support assets, each with specific functional capabilities, working together to defend against all classes and ranges of ballistic missile threats in all phases of flight. Multiple defensive weapons would be used to create a layered defense comprised of multiple intercept opportunities along the trajectory of the incoming ballistic missiles. This would provide a layered defensive system of capabilities designed to back up one another.

On December 17, 2002, the President announced his decision to field an initial defensive operation capability. The initial fielding would provide a modest protection of the U.S. and would be improved over time. Prior to the initiation of the BMDS PEIS, MDA and its predecessor agencies prepared several programmatic National Environmental Policy Act (NEPA) documents regarding ballistic missile defense. In addition, each program element prepared extensive NEPA documentation to cover its own specific test and development activities. Ballistic missile defense has evolved to the point that the BMDS PEIS was prepared to consider the integrated BMDS as envisioned in the evolution of the MDA.

A Programmatic EIS, or PEIS, analyzes the broad envelope of environmental consequences in a wide-ranging Federal program like the BMDS. A PEIS addresses the overall issues in a proposed program and considers related actions together in order to review the program comprehensively. A PEIS is appropriate for projects that are broad in scope, are implemented in phases, and are widely dispersed geographically. A PEIS

creates a comprehensive, global analytical framework that supports subsequent analysis of specific activities at specific locations, which could then be tiered from the PEIS.

The BMDS PEIS is intended to serve as a tiering document for subsequent specific BMDS NEPA analyses and includes a roadmap for considering environmental impacts and resource areas in developing future documents. This roadmap identifies how a specific resource area can be analyzed and also includes thresholds for considering the significance of environmental impacts to specific resource areas. This means that ranges, installations, and facilities at which specific BMDS activities may occur in the future could tier their documents from the PEIS and have some reference point from which to start their site-specific analyses.

C. National Environmental Policy Act (NEPA) Process

The MDA prepared the BMDS PEIS pursuant to the Council on Environmental Quality (CEQ) regulations implementing the NEPA (40 CFR Parts 1500-1508); Department of Defense (DoD) Instruction 4715.9, *Environmental Planning and Analysis*; the applicable service environmental regulations that implement these laws and regulations; and Executive Order (EO) 12114, *Environmental Effects Abroad of Major Federal Actions* (whose implementation is guided by NEPA and the CEQ implementing regulations).

On April 11, 2003, MDA initiated the public scoping process by publishing the Notice of Intent (NOI) to prepare the PEIS for the BMDS in the Federal Register. MDA held public scoping meetings in Arlington, Virginia; Sacramento, California; Anchorage, Alaska; and Honolulu, Hawaii. The Notice of Availability (NOA) of the MDA BMDS Draft PEIS was published in the Federal Register on September 17, 2004. This initiated a public review and comment period for the Draft PEIS. MDA held public hearings in Arlington, Virginia; Sacramento, California; Anchorage, Alaska; and Honolulu, Hawaii. MDA received approximately 8,500 comments on the Draft PEIS; MDA considered all of these comments in preparing the Final PEIS. Responses to all of the in-scope comments can be found in Appendix K of the PEIS. Three recurring issues of public concern—orbital debris, perchlorate, and radar impacts to wildlife—were addressed in more technical detail in Appendices L, M, and N, respectively, of the PEIS.

The NOA for the Final PEIS was published in the Federal Register on February 16, 2007. This ROD is the culmination of the NEPA process.

D. Alternatives Considered

In developing the alternatives, MDA reviewed the various components of the BMDS (i.e., weapons, sensors, C2BMC, and support assets) and the acquisition process common to all components (i.e., development, testing, deployment, and planning for decommissioning). The components are the systems and subsystems of logically grouped hardware and software that perform interrelated tasks to provide the BMDS functional capabilities. The acquisition process is capability-driven and component-based. Capability-based planning allows MDA to develop capabilities and system performance objectives based on technological feasibility, engineering analyses, and the potential capability of the threat. Spiral development is an iterative process for developing the BMDS by refining program objectives as technology becomes available through research and testing with continuous feedback among MDA, the test community, and the military operators. Each new technology goes through development; promising technologies go through testing and demonstration; and proven technologies are incorporated into the BMDS.

- **Development.** Development includes the various activities that support research and development of the BMDS components and overall systems. This includes planning, budgeting, research and development, systems engineering, site preparation and construction, repair, maintenance and sustainment, manufacture of test articles and initial testing, including modeling, simulation, and tabletop exercises.
- **Testing.** Testing of the BMDS involves demonstration of BMDS elements and components through test and evaluation. The successful demonstration of the BMDS would rely on a robust testing program aimed at producing credible system characterization, verification, and assessment data. To confirm these capabilities, MDA would continue to develop test beds using existing and new land-, sea-, air-, and space-based assets. Some construction at various geographic locations would be required to support infrastructure and assets where BMDS components and the overall system would be tested. Testing of the BMDS includes ongoing and planned tests (e.g., ground tests, flight tests) of components that might be incorporated into the BMDS, as well as tests of the layered, integrated BMDS through increasingly realistic system integration tests through 2012 and beyond.
- **Deployment.** Deployment of the BMDS refers to the fielding (including the manufacture, site preparation, construction, and transport of systems) and sustainment (including operations and maintenance, training, upgrades, and service life extension) of the BMDS. The evolving BMDS is intended to have the capability over time to deploy different combinations of interoperable components. Deployment also would involve the transfer of facilities, elements, and programs to the military services.

- **Decommissioning.** Decommissioning would involve the demilitarization and final removal and disposal of the BMDS components and assets. Plans would be made for decommissioning BMDS components by either demolition or transfer to other uses or owners.

The following presents a discussion of the alternatives considered by MDA and presents and contrasts the components and acquisition phases that are unique to each alternative.

No Action Alternative: Under the No Action Alternative, the MDA would not develop, test, deploy, or plan for decommissioning activities for an integrated BMDS. Instead, the MDA would continue existing development and testing of discrete systems as stand-alone ballistic missile defense capabilities. Individual systems would continue to be tested but would not be subjected to System Integration Tests.

Alternative 1 (selected alternative): Under Alternative 1, the MDA will develop, test, deploy, and plan to decommission an integrated BMDS, composed of land-, sea-, and air-based components. Alternative 1 also includes space-based sensors, but does not include space-based interceptors.

Alternative 2: Under Alternative 2, the MDA would develop, test, deploy, and plan to decommission an integrated BMDS, composed of land-, sea-, air-, and space-based components. Alternative 2 would be identical to Alternative 1, with the addition of space-based interceptors. A space-based test bed would be considered and evaluated to determine the feasibility of using kinetic energy interceptors on space platforms to intercept threat missiles.

E. Environmental Impacts of Alternatives

The PEIS evaluated potential impacts associated with each alternative for each acquisition life cycle phase (i.e., development, testing, deployment, and planning for decommissioning) by component (i.e., weapons, sensors, C2BMC, and support assets). To evaluate the potential impacts of implementing one of the alternatives (i.e., No Action Alternative, Alternative 1, or Alternative 2) considered for the BMDS, the MDA characterized the existing condition of the affected environment in the locations where various BMDS implementation activities would occur. The affected environment includes all land, air, water, and atmospheric environments where proposed activities are reasonably foreseeable. For this PEIS, the affected environment includes all locations, ranges, installations, and facilities that the MDA has used, uses, or proposes to use for the BMDS both within and outside the U.S. The MDA determined that activities associated with the proposed BMDS might occur in locations around the world. Therefore, the affected environment has been considered in terms of global biomes, broad ocean areas, and the atmosphere.

Each biome covers a broad region, both geographically and ecologically for both domestic and international locations where components of the proposed BMDS may be located or operated. Climate, geography, geology, and distribution and abundance of vegetation and wildlife determine the range of the biomes. Using biomes as affected environmental designations facilitates future site-specific environmental documentation to tier from the BMDS PEIS. Further, BMDS test activities would often occur over broad ocean areas, and the necessity of launching targets and interceptors to support testing would indicate that consideration of the atmosphere and broad ocean areas as parts of the affected environment was appropriate.

To evaluate the potential environmental consequences of the alternatives, the components of the BMDS (i.e., weapons, sensors, C2BMC, and support assets) were evaluated as they proceed through acquisition life cycle phases. MDA evaluated each of the BMDS acquisition phases including development, testing, deployment, and decommissioning. Not all activities associated with the BMDS are expected to produce environmental impacts. Only those activities with expected impacts during one or more acquisition phases were identified in the PEIS. Further, only those activities that are considered reasonably foreseeable were analyzed in the PEIS. Four steps were used to analyze impacts in the BMDS PEIS. Step 1 included the identification and characterization of BMDS activities. Step 2 included the identification of activities with no potential for impact. Step 3 included the identification of similar activities occurring across acquisition life cycle phases. Step 4 included the conduct of environmental analyses. The analyses for each alternative are specific to each resource area based on the impacts from the activities associated with the BMDS components.

The potential impacts of the various alternatives are summarized in Exhibits ES-7 through ES-13 in the Final BMDS PEIS (available on the MDA web site <http://www.mda.mil/mdalink/html/enviro.html>) and are as discussed in the Final BMDS PEIS. This ROD presents a brief discussion that highlights the differences between the alternatives.

Alternative 1 would result in the potential for increased environmental consequences over the No Action Alternative due to the additional integrated test events and the development and testing of an integrated C2BMC. The additional potential for environmental consequences associated with the development, testing, deployment, and planning for decommissioning of the space-based interceptors in Alternative 2 could result in environmental consequences that would be in addition to those associated with Alternative 1.

The increase in potential impacts associated with the development and acquisition phases of Alternatives 1 and 2 over the No Action Alternative would result from increased testing and the site preparation and development of new facilities or the refurbishment of existing facilities for C2BMC, or to develop space-based missile defense technologies.

The site preparation may result in additional impacts on the land-based resources (i.e., biological, geology and soils, noise, water), but would not impact non-land based resources (i.e., airspace or orbital debris).

The increase in potential impacts associated with the testing acquisition phase of Alternatives 1 and 2 over the No Action Alternative would result from an increased number of test events, specifically, system integration tests. The increase in the number of test events would result in additional impacts on all resource areas, and based on the specific activities and objectives of an individual test event, impacts on some resources might be insignificant as demonstrated in the PEIS, while impacts to other resources would be more substantial.

The increase in potential impacts associated with the deployment acquisition phase of Alternative 2 over Alternative 1 and the No Action Alternative would result from the site preparation, development, and emplacement of new facilities or the refurbishment of existing facilities for deployment of space-based interceptors. The site preparation may result in additional impacts on the land-based resources (e.g., biological, geology and soils, noise, water), and placing interceptors into space could produce impacts on non-land based resources (e.g., airspace or orbital debris).

The increase in potential impacts associated with the planning for decommissioning of Alternative 2 over Alternative 1 and the No Action Alternative would result from the additional BMDS components that would require decommissioning.

No significant environmental impacts or cumulative impacts on resource areas addressed for any activity considered in implementing the BMDS were found in this programmatic impact analysis. There could be impacts associated with the specific BMDS program activities at specific locations; however, as stated in the PEIS they would be addressed, as appropriate, in subsequent NEPA analyses that would tier from the PEIS. As appropriate, mitigation measures would be developed to address any site-specific significant impacts.

F. Mitigation Monitoring

MDA did not identify any significant programmatic environmental impacts arising from the proposed action and therefore, is not identifying specific mitigation measures. However, as discussed above, there is the potential for specific BMDS activities at specific locations to impact the environment, and mitigation measures would be identified, as appropriate, in future NEPA analyses tiered from this PEIS. MDA uses a mitigation monitoring database to track the implementation of mitigation measures identified in previous NEPA analyses and will continue to follow its mitigation monitoring process (Environmental Management Plan-3-62, Mitigation Monitoring) to both track and monitor the effectiveness of MDA's mitigation measures, including those identified in future, site-specific NEPA analyses tiered from this PEIS.

G. Environmentally Preferred Alternative

The findings of the PEIS indicate that the No Action Alternative, the continuation of existing program element-based testing and development activities with no integration testing, would be the environmentally-preferred alternative. As a conservative estimate, MDA assumed that stand-alone element component testing as well as system integration testing would occur under Alternatives 1 and 2, which would result in potentially more adverse effects than the No Action Alternative. However, MDA believes that consolidation of stand-alone component tests associated with Alternative 1 into the system integration tests to the extent practicable could serve to reduce the overall environmental consequences as the total number of tests conducted by MDA could fall.

H. Conclusion

I have considered potential environmental impacts as defined in the PEIS, cost, technical requirements, applicable statutory and regulatory requirements, Presidential direction (the December 17, 2002, Presidential announcement to field an initial defensive operation capability), MDA's mandate and mission, and public comments in arriving at my decision.

I select Alternative 1 over the other alternatives for implementation of the proposed action. Although the No Action Alternative has been identified as the environmentally-preferred alternative, it does not support the Agency's mandate or mission. Alternative 1 has fewer environmental consequences than Alternative 2, as described above.

I have selected Alternative 1 because integration of missile defense capabilities as opposed to single element development, testing, and deployment is essential to an effective BMDS that can provide a layered defense of the United States, its deployed troops, and its friends and allies. Any decision to deploy a BMDS capability will be subject to Presidential and Congressional authorization and funding.

Signed: 

Date: APR 08 2008

HENRY A. OBERING III
Lieutenant General, USAF
Director