## Statement by Thomas P. Christie Director, Operational Test and Evaluation

## Before the Senate Armed Services Committee

## **Missile Defense**

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Mr. Chairman, members of the committee, I appreciate the opportunity to appear before you today and discuss the operational testing issues involved with building a missile defense test bed that may also have some inherent defensive capability. I strongly support building this test bed as a means of conducting more realistic ballistic missile defense testing. It will provide us with an excellent capability to test the integrated Ballistic Missile Defense System against more challenging targets under more realistic flight conditions. Designed to accomplish this testing mission, this test bed may have some capability to defend against an actual threat in a real attack, depending, of course on certain assumptions about intelligence of an imminent attack and the positioning of sensors to acquire, track and target the threat. Regardless of what this initial collection of equipment, communications, and personnel is called, the fact remains that we must build the test capability and put it in the field before we can test the system. It is also prudent to develop operational concepts, and train personnel in concert with the test bed's development, so that whatever inherent capability exists in the testing infrastructure could be employed to defend the United States in the event of a ballistic missile attack.

I understand and share the concerns raised by members of Congress with the precedent of fielding operational systems without adequate operational testing. Some have suggested that the department is requesting a waiver from operational testing for the BMDS system. Let me take a moment here to discuss my assessment of this situation.

The Missile Defense Agency is proceeding with a design and development strategy that is very proactive when it comes to testing. General Kadish has adopted a mission assurance philosophy that treats test instrumentation as mission critical equipment. My staff and I are involved on a daily basis with the Missile Defense Agency and the program managers for the Ballistic Missile Defense System elements, reviewing test plans, participating in planning meetings, witnessing tests, providing coordinated advice to the Director, and responding in written reports to Congress on the adequacy of the testing programs. I have access to all the information I need to fulfill these responsibilities.

I have completed my assessment of the PAC-3 Initial Operational Test and Evaluation test results, which is documented in a classified Beyond Low Rate Initial Production report, provided last November to the Congress. I have also completed and submitted to the appropriate committees of the Congress, my annual assessment of the MDA testing programs, required by House report 107-333. In that report, I conclude that the Ground-based Midcourse Defense element of the BMDS has essentially not yet demonstrated operational capability. This conclusion, which I believe MDA agrees with, is based on the fact that many essential components of GMD have not yet been built. We cannot test the system without these critical components, and we cannot test it realistically without the test bed.

This was illustrated recently, when the exoatmospheric kill vehicle failed to separate from the booster in IFT-10. MDA subsequently restructured the flight test program, eliminating further testing with the old booster system. This decision considered the poor performance of the legacy booster system and the risks of diverting booster developers from the objective booster design effort, compared with the advantages of gathering additional data from those flight tests.

Beginning later this fiscal year and prior to the 04 decision, testing will resume with a test flight for each of the candidate boosters and a risk reduction flight for a target launched from Kodiak. Intercept testing will continue in IFTs-14 and 15, flown with the new boosters. MDA is currently considering plans to optimize the sequence of these tests, and to include additional risk reduction flights. This is followed by integration ground testing of the test bed and a system test readiness review. Current plans also call for three more intercept flights for the Aegis Ballistic Missile Defense prior to the end of fiscal year 2004, with the last flight conducted against a separating threat. Additional flight testing beyond this point is still being planned. The purpose of the test bed is to establish a baseline capability, to realistically integrate and test the components of the BMDS, and to enhance capability incrementally, through block development.

The real challenge is to develop an operational concept for using the test bed that integrates components of the BMDS as they become available, in order to evaluate the operational capability of the system and defend against a ballistic missile attack in an emergency. If we don't develop an operational concept and an attack does come, then we will have failed in a most serious way. On the other hand, if an effort to refine an operational concept for an interim system significantly distracts us from building the objective system in an expeditious fashion, then we risk similar failure against more sophisticated threats down the road. Defense from the test bed is a serious matter that will demand the focused attention of the developers, the testers and the users. We will need to work together with a common understanding of what we are building to achieve this goal.

While the test bed is a research and development system, this does not preclude us from addressing operational test and evaluation issues. In fact, it is common for systems in development to combine developmental and operational test objectives. The test bed, including missiles, will provide an early opportunity to acquire valuable ground test data on intra- and interoperability between the command and control center and the silo/missile complex; on the system and missile health and status or built in testing capability; and on system safety, reliability, maintainability and logistics supportability. It will also permit us to get an early start on collecting data on aging effects on the missile. Availability of this data will permit lessons learned from the test bed to be considered in improving the objective Ground-based Mid-course Defense system.

Every major GMD ground and flight test, both prior to and after the '04 Testbed availability, formally addresses both DT and OT objectives consistent with the maturity level of the system. This includes testing planned both prior to '04 Testbed capability and after. The Service Operational Test Agencies have approximately 35 personnel dedicated to planning the details of the operational test portion of the ground and flight tests, and for analyzing and reporting relevant operational test data. My staff is working with the Operational Test Agencies to define independent evaluation plans for the operational test activities. I will review and approve these Operational Test and Evaluation plans and

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their associated data requirements. I will review and comment on plans for developmental tests, exercises, simulations, and experiments that will produce the data to feed the evaluation process. I will use both developmental and operational test data as the basis for my operational assessment, for advising General Kadish, and as the basis for my annual assessment.

Let me wrap up my remarks with an update on the PAC-3 program. This is the first BMDS element to go through a procurement milestone under the new capability based acquisition philosophy. I concluded in my Beyond Low Rate Production report submitted last October that the missile shows significantly improved performance against some tactical ballistic missile threats. The Defense Acquisition Board approved a limited purchase of PAC-3 missiles, consistent with programmatic objectives, such as developing production capacity and unit cost considerations, and urgent military needs. This puts an improved, proven capability in the field well ahead of when a completely demonstrated objective capability will be available. MDA originally planned for future blocks of the PAC-3 system to stay in research and development, transitioning to the Army only after each block went through further developmental and operational testing. However, MDA took the advice of myself and other missile defense support group members, to keep the development and testing activities in a combined DT/OT mode. The entire PAC-3 program is being transitioned to the Army. This decision avoids conflicting development objectives between missile defense and air defense mission needs. The program office has developed a comprehensive follow-on test program to address maneuvering ballistic missile targets, countermeasures, and air defense targets.

Mr. Chairman, Ladies and Gentlemen, my staff has worked diligently with General Kadish's staff to build what I feel is a very effective relationship. I will continue to work closely with General Kadish to make sure that the mission of the test bed, as a test bed, is kept in perspective. General Kadish and I have discussed taking advantage of the data gathering opportunities that the test bed will provide. I am working with the Service operational test agencies to identify data requirements for an operational evaluation plan that I will review and approve. I will continue to monitor planning and testing activities to ensure that we test as realistically and thoroughly as we can, advise the Director, MDA of operational testing concerns, and report my assessments of progress to the Secretary and to you.

This concludes my opening remarks and I welcome your questions.