

**STATEMENT**

**BY**

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**BEFORE THE**

**HOUSE ARMED SERVICES COMMITTEE**

**STRATEGIC FORCES SUBCOMMITTEE**

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Chairman Turner, Congresswoman Sanchez, distinguished Members of the Committee, thank you for the opportunity to discuss missile defense test planning, processes, and programs, including my assessment of the Ballistic Missile Defense System, or BMDS, Integrated Master Test Plan. I will focus my remarks in three areas:

First, my assessment of the Missile Defense Agency, or MDA, flight test program during the past year, the details of which are in my annual report submitted to you on February 11<sup>th</sup>;

Second, the major events this last fiscal year that influenced both the mid-year update to the Integrated Master Test Plan, or IMTP, version 10.2, and the most recent version 11.1; and

Finally, my assessment of the current IMTP.

**Fiscal Year 2010 Flight Test Program**

When Fiscal Year 2010 began, the MDA planned to conduct three intercept flight tests and two non-intercept flight tests. With one exception which I will discuss in a moment, these flights test were all included in version 10.1 of the IMTP which DOT&E approved on February 26, 2010.

*Aegis Ballistic Missile Defense, or Aegis BMD*, planned to accomplish a non-intercept flight test, FTX-06, the first radar tracking test of the new BMD 4.0.1 software. Aegis BMD completed this test as planned.

*Ground-based Midcourse Defense, or GMD*, planned to accomplish one intercept flight test, FTG-06, and one non-intercept flight test, BVT-01, the first flight of the 2-stage interceptor. The MDA accomplished both tests; however, the intercept planned in FTG-06 was unsuccessful.

At the beginning of the fiscal year, *Terminal High Altitude Area Defense, or THAAD*, planned to accomplish two intercept flight tests, FTT-11 and FTT-12. THAAD completed one flight test, but, due to target problems, it was neither FTT-11 nor FTT-12. Before IMTP 10.1 was approved, FTT-11 experienced a target failure which also affected FTT-12. The MDA pulled FTT-14 forward from Fiscal Year 2012 to June 28, 2010, using an available target originally planned for Airborne Laser testing. The MDA later added FTT-11a and rescheduled FTT-12 in Fiscal Year 2013 and Fiscal Year 2011 respectively.

Additionally, the MDA successfully supported two Japanese Aegis BMD flight tests and two Patriot flight tests by providing the targets for those tests. All four of these flight tests were successful.

There was no operational testing during Fiscal Year 2010. However, the MDA continued to incorporate elements of operational realism in all flight tests to the extent possible.

## **Events Affecting Test Planning**

Two significant events occurred as version 10.1 of the IMTP was being developed for approval in February 2010. On December 9, 2009, the first quarter of the fiscal year, during THAAD flight test FTT-11, the target failed to deploy properly after it was released from a C-17, and was lost. Then on January 31, 2010, the second quarter of the fiscal year, during GMD flight test FTG-06, the kill vehicle failed to intercept the target.

The THAAD target failure resulted in the decertification and requalification of the target contractor, a process that is still incomplete at this time. The result is that re-accomplishment of THAAD flight test FTT-11 has been delayed twice, first to the first quarter of Fiscal Year 2013, and subsequently to the third quarter. One of the targets to be used for flight test FTT-12 has also been changed, delaying the test to the fourth quarter of Fiscal Year 2011. The targets now planned for use in FTT-12 will not allow all of the objectives originally planned for the test to be accomplished. Those objectives will now be accomplished in flight tests conducted during the next two years. FTT-13, the first intercept of a complex separating medium range target with associated objects, subsequently added by IMTP 10.1 in the second quarter of Fiscal Year 2011, had to be delayed one year to the second quarter of Fiscal Year 2012 by IMTP 11.1 due to target availability. As a result, THAAD will not demonstrate capability against true medium range ballistic missiles before the Army must make its material release decision for fielding the first two operational THAAD batteries.

The FTG-06 failure was noteworthy for two reasons. First, it highlighted the technical complexities associated with using the Sea-Based X-band radar. Second, it prevented GMD from successfully demonstrating the performance of the Capability Enhancement II, or CE-II, kill vehicle. As a result, FTG-06 had to be repeated. GMD attempted to do this with FTG-06a on December 15, 2010, after analyzing the causes for the FTG-06 failure and implementing fixes. The Sea-Based X-band radar performed as expected; however, the CE-II kill vehicle again failed to intercept the target. The causes of the most recent failure, which are different from those of the original FTG-06, remain under investigation. The test must be repeated for a second time and is tentatively planned for the third quarter of Fiscal Year 2012 as FTG-06b. Because the number of GMD interceptors available for testing is limited, and additional targets must be purchased to support this repeat testing, FTG-11 has been eliminated. The objectives for FTG-11, the first salvo flight test of two interceptors on one target missile, have been moved to the second operational flight test, FTO-02, planned for the fourth quarter of Fiscal Year 2015. In the interim, less data will be collected to verify, validate, and accredit the GMD models and simulations necessary for comprehensive operational testing.

## **Assessment of the Current IMTP**

The Director of MDA, General O'Reilly, has brought rigor to the IMTP development process that continues to produce an excellent, well-justified set of tests. My office is substantively involved throughout the six-month review and revision process MDA is using to develop and update the IMTP. This process has worked extremely well during preparation of the three versions - 10.1, 10.2, and 11.1 - that I have approved jointly with General O'Reilly. The process used has enabled each of these versions of the IMTP to be revised in a timely manner consistent with policy changes, such as the President's Phased Adaptive Approach for missile defense in Europe, flight test results (including unsuccessful intercepts) such as those I have mentioned previously, or, fact-of-life changes in budgetary resources. Version 11.1 of the IMTP is a rigorous plan for obtaining the test information needed to assess BMDS performance quantitatively.

However, as I noted in my testimony last year, the IMTP is, for the most part, success-oriented. It does not incorporate explicitly repeat, or backup, tests that could be used to compensate for unsuccessful tests. Therefore, the effects of unsuccessful tests, such as the delays in data collection resulting from the unsuccessful intercepts occurring in FTG-06 and FTG-06a, can be significant. Nonetheless, the process of six-month revisions to the IMTP allows for adjustments to be made to create flexibility when it is needed. For example, General O'Reilly recognized the importance of the information to be collected during the upcoming Aegis BMD flight test FTM-15 to support implementation of

Phase 1 of the Phased Adaptive Approach for missile defense in Europe. During FTM-15, Aegis BMD will demonstrate for the first time its capability to negate the longer-range threats that must be countered in Phase 1. Consequently, six months ago the IMTP was revised to conduct FTM-15 in April 13, 2011, vice June 8, 2011, providing time to conduct another test if that becomes necessary.

### **Conclusion**

The ability to conduct comprehensive quantitative assessments of BMDS capability remains a number of years away. Executing the IMTP will enable collection of the data needed to validate the models required to perform those assessments. Steady progress is being made towards achieving that goal. The rigorous testing incorporated in the IMTP will inevitably lead to flight test failures. Those failures, although often perceived as setbacks, provide information absolutely critical to assuring ballistic missile defenses will work.

This concludes my remarks and I welcome your questions.