

B-2 Radar Modernization Program (B-2 RMP)

Executive Summary

- The B-2 Radar Modernization Program (RMP) experienced technical maturity problems in developmental testing that precluded the system from entering IOT&E in FY07.
- Developmental test efforts were temporarily suspended in mid-FY07 to enable the Air Force to re-evaluate RMP progress and re-structure the program to resolve the technical challenges that had resulted in performance deficiencies. All aspects of the revised RMP strategy were not yet finalized at the end of FY07; however, resumption of developmental testing in late FY07 indicated that the system was making progress in resolving the problems that had occurred earlier in the year.
- At the end of FY06, the program had little margin to meet its planned classified fielding date. The additional challenges realized in FY07 suggest that the program is unlikely to meet this date. The program's Milestone C date has moved from FY07 to FY08 in light of technical maturity challenges.



System

- The B-2 is a multi-role, low-observable bomber capable of delivering conventional and nuclear munitions. It has four turbofan engines and twin side-by-side weapons bays.
- The B-2 RMP features an Active Electronically Scanned Array radar operating on a new frequency.
- System avionics include a multi-mode radar, Global Positioning System-aided navigation, and a Defensive Management System for radar warning functions.
- The bomber's principal conventional weapons are the 2,000-pound and 500-pound Joint Direct Attack Munition.

Mission

- Combatant commanders use the B-2 aircraft to attack global targets during the day or at night, in all weather, in highly defended threat areas at the strategic, operational, and tactical levels of warfare.
- Commanders use the B-2 to engage high-value, heavily defended target sets including: command and control facilities, airfields, industrial complexes, logistical and air defense systems, lines of communication, and battlefield forces and equipment.

Activity

- B-2 RMP testing was conducted in accordance with the January 2004 DOT&E-approved B-2 Capstone Test and Evaluation Master Plan.
- Developmental test and evaluation, as part of the System Development and Demonstration (SDD), was ongoing throughout FY07. Technical maturity problems in SDD hampered RMP progression in developmental testing. The Air Force temporarily suspended testing and initiated program re-planning efforts. The program's FY07 Milestone C date will not occur as planned but will instead slide to calendar year 2008 in concert with Air Force re-planning efforts. As of the end of FY07 the Air Force had yet to finalize the revised RMP program strategy.
- An Air Force Operational Test and Evaluation Center Operational Assessment (OA) of RMP progress in developmental testing was ongoing in FY07. The OA was suspended in light of the technical maturity problems realized

in developmental testing. Further OA data collection will be required to assess RMP maturity in FY08 prior to system entry into IOT&E.

Assessment

- RMP did not demonstrate sufficient progress in developmental testing to meet the program's planned FY07 Milestone C date. Technical maturity problems resulted in numerous system failures and re-starts during flight, misrepresentation of radar-displayed weather phenomena, and inconsistent radar return display in the cockpit during developmental testing.
- The Air Force initiated re-planning efforts to resolve RMP maturity challenges, and at the end of FY07 progress was noted in resumed developmental testing. The Air Force RMP re-structure strategy is expected to be formalized in early FY08.

AIR FORCE PROGRAMS

- Due to the program re-structure, Milestone C is not anticipated until mid-calendar year 2008, and the program is not likely to meet its original classified operational fielding date.
- FY07 Recommendation.
 1. The Air Force should finalize RMP re-structure efforts as soon as is practicable to enable operational test planners to adequately prepare for RMP IOT&E.

Recommendations

- Status of Previous Recommendations. There are no outstanding recommendations from FY06.