KC-135 Block 40 Upgrade

Executive Summary
- The KC-135 Block 40.2 has met all eight key performance parameters.
- Information assurance issues are partially mitigated, but have not been resolved.

System
- The KC-135 is the primary U.S. Air Force aerial refueling aircraft.
- The Block 40 KC-135 is the lead platform for DoD Communications, Navigation, and Surveillance for Air Traffic Management (CNS/ATM) modifications, formerly the Global Air Traffic Management program.
- CNS/ATM functions maintain a highly accurate position, and transmit position and intent to ground Air Traffic Control facilities and other aircraft via a datalink.
- The KC-135 with the CNS/ATM modifications is designed to preserve DoD access to global air traffic routes and airfields.

Mission
- Units equipped with the KC-135 tanker refuel fighter, bomber, transport, and reconnaissance aircraft in support of their respective operational mission.

- Secondary missions include cargo and personnel delivery, aero-medical evacuation, and combat search and rescue.

Activity
- Prior KC-135 Block 40 test and evaluation occurred in three phases leading to the initial fielding: Phase I and Phase II/IIA were Qualification Tests. The Air Force Operational Test and Evaluation Center (AFOTEC) conducted Phase II from 2002-2004.
- The Air Mobility Command Test and Evaluation Squadron conducted a Force Development Evaluation (FDE) in 2005 on the further enhanced KC-135 Block 40.2 aircraft. The FDE examined the correction of deficiencies identified during AFOTEC's Block 40 OT&E. The FDE used a single aircraft and consisted of 153 hours of ground data collection plus 44.5 flying hours, one three-hour training mission at Fairchild Air Force Base, Washington, and a 13-day trip in Pacific Ocean civil airspace. The CNS/ATM training program for pilots was not re-evaluated during the FDE. Only the procedural differences between the two Block configurations were evaluated.
- Two-ship formation flying with one Block 40 aircraft and one Block 40.2 aircraft were evaluated during FDE.
- All testing was accomplished in accordance with a DOT&E-approved test plan.

Assessment
- IOT&E was an adequate evaluation of initial KC-135 CNS/ATM modifications.
- Four key performance parameters were met during qualification test and evaluation. Subsequent certification of the navigation database permitted the final four key performance parameters to be met.
- DOT&E evaluated the KC-135 Block 40 as not operationally effective for its global mobility mission because of information assurance limitations. However, the KC-135 can perform its primary mission of refueling.
- Information assurance issues have not been resolved.

Recommendation
1. Continue to monitor procedural and hardware/software developments until information assurance issues are resolved.