

Air Force Distributed Common Ground Segment (AF DCGS)

Executive Summary

- The Air Force conducted a Force Development Evaluation (FDE) of Air Force Distributed Common Ground System (AF DCGS) Block 10.2 in March 2010. DOT&E evaluated the system as not effective and not suitable.
- The system is in the sustainment phase, and the Air Force is conducting a study to determine their future plans for AF DCGS.

System

- AF DCGS Block 10.2 is an upgrade to the legacy Block 10.1. The Block 10.2 upgrades make the applications available via the internet to allow collaboration among intelligence analysts located at multiple sites.
- The DCGS Integration Backbone (DIB) provides the software framework that supports the net-centric enterprise capability that allows sharing of services and data via web services. The DIB consists of commercial off-the-shelf software products.
- The five AF DCGS Block 10.2 core sites are Langley AFB, Virginia (Distributed Ground System 1 (DGS-1)); Beale AFB, California (DGS-2); Osan Air Base, Korea (DGS-3); Ramstein Air Base, Germany (DGS-4); and Hickam AFB, Hawaii (DGS-5). Worldwide, the Air Force has installed components of Block 10.2 at an additional 16 sites that include seven Air National Guard Sites, a DGS-Experimental at Langley AFB, and eight special purpose sites.

Mission

- The Air Force uses AF DCGS to provide the capability to task sensors, process sensor data, exploit sensor data from multiple sources, and disseminate intelligence products.
- The Joint and Combined Force Air Component Commander will use AF DCGS to produce and disseminate intelligence, surveillance, and reconnaissance (ISR) information.

Activity

- In December 2009 and January 2010, the 46th Test Squadron conducted regression developmental tests to verify fixes to problems that the Test Squadron discovered during prior developmental testing.
- In February 2010, the 605th Test and Evaluation Squadron conducted Phase 1 of a two-phase FDE in accordance with the DOT&E-approved test plan to assess the operational effectiveness and suitability of AF DCGS Block 10.2. The 605th Test and Evaluation Squadron suspended the FDE after



AOC - Air Operations Center **JIOC - Joint Intelligence Operations Center**
AWACS - Airborne Warning and Control System **JSTARS - Joint Surveillance Target Attack Radar System**
GH - Global Hawk **JTF - Joint Task Force**
HQ - Headquarters **TARS - Tactical/Theater Airborne Reconnaissance System**
JFC - Joint Forces Command

- The ISR products support ISR management, intelligence preparation of the battlespace, predictive battlespace awareness, indications and warning, current intelligence, analysis of enemy courses of action, targeting and weapon selection, mission planning, and execution of air combat training missions.

Major Contractor

Raytheon – Garland, Texas

five days of testing due to multiple software problems that precluded conduct of missions.

- In March 2010, the 605th Test and Evaluation Squadron resumed operational testing with a five-day regression FDE.
- The system is now in the sustainment phase and the Air Force has not provided any plans for future operational testing. The Air Force is conducting a study to determine the future of the program.

AIR FORCE PROGRAMS

Assessment

- The system, as tested, performs many missions well, but is not effective and not suitable to support the full range of Air Force ISR missions. During the regression FDE, AF DCGS could not support the simultaneous load of full motion video from Predator and Reaper, Global Hawk, and U-2 missions. In addition, a software problem adversely affected the planning and tasking of U-2 missions.
- Testing of multi-site operations that had been scheduled for Phase 2 of the FDE has not been conducted due to the performance shortfalls discovered during Phase 1.

Recommendations

- Status of Previous Recommendations. This is the first annual report for this program.
- FY10 Recommendation.
 1. If the study regarding the future of AF DCGS includes a new materiel solution, the Air Force should plan and conduct the appropriate level of testing.