

Joint Tactical Radio System (JTRS) Cluster 1

Executive Summary

- The Joint Tactical Radio System (JTRS) program is encountering technical maturity challenges with size, weight, power, integrated software-based security, and development of software waveforms.
- JTRS management has been reorganized under a Joint Program Executive Officer. The Joint Program Executive Office is tasked to restructure the entire JTRS program.
- The early operational assessment was postponed indefinitely when engineering development model radios did not exhibit the desired functionality or maturity.

System

- JTRS is a family of software programmable radios consisting of several product lines or clusters. JTRS is designed to provide a new flexible approach for supporting the many diverse warfighter communications requirements.
- JTRS Cluster 1 is the ground, helicopter, and vehicular-based radio.
- JTRS Cluster 1 is one of the primary radios at the tactical level for the Future Combat System (FCS), and JTRS is the first step to achieving net-centric capability and information superiority.
- DoD procurement objective is over 100,000 JTRS Cluster 1 radios.



Mission

- Commanders will employ JTRS Cluster 1 as a primary means to communicate with their forces via voice, video, and data during military operations, across the U.S. military Services, and with coalition and allied forces.
- JTRS Cluster 1, in the near-term, is intended to be backwards-compatible with currently fielded radios. JTRS Cluster 1 is intended to be network capable, allowing dynamic intra-network and inter-network routing for data transport.

Activity

- Technical demonstrations at the Electronic Proving Ground and the Joint Interoperability Test Command at Fort Huachuca, Arizona, using the JTRS Cluster 1 pre-engineering development models with surrogate waveforms took place in 2005.
- The JTRS Cluster 1 early operational assessment originally scheduled for 2004 intended to test the basic functionality of pre-engineering development models. It has been postponed indefinitely.
- In December 2004, the Army delayed the JTRS Cluster 1 low-rate production decision scheduled for 3QFY05 and added \$458 Million and 24 months to the program because of technical problems and cost growth.
- In January 2005, the Defense Acquisition Executive directed the Army to stop work on the program, except for the software waveforms preparation and the pre-engineering development model radios for early operational assessment.
- In April 2005, JTRS Cluster 1 performance in developmental testing indicated that the system was not mature. A Show Cause letter was issued to the prime contractor in April 2005.

Assessment

- JTRS radio systems are essential to the FCS battle command network. With the current delays, JTRS Cluster 1 radios are not likely to be available for testing with the first FCS network spiral in 2008.
- The critical technology for JTRS Cluster 1, software waveforms, is not ready for assessment or test. The technology generally is not mature.
- The program manager needs to provide an updated JTRS Cluster 1 Test and Evaluation Master Plan that reflects program restructure.

Recommendations

1. Program restructuring efforts must define a realistic schedule for delivery of increments to support warfighting capabilities.
2. The Army should examine alternatives that satisfy the capability and basic need of the Services. The Army should also synchronize JTRS, FCS, and the Warfighter Information Network–Tactical.

ARMY PROGRAMS