

Joint Tactical Radio System (JTRS) Capstone

Executive Summary

- The Joint Tactical Radio System (JTRS) program completed management reorganization under the direction of a Joint Program Executive Officer (JPEO). The Navy became the JTRS Executive Agent in July 2006.
- JTRS “clusters” were renamed as “product lines,” and a new product line for “Networking Enterprise Services” was added to provide gateways and waveform management.
- The JTRS program is currently restructuring. The program is working critical documentations such as acquisition strategy, enterprise concept of operations, and test strategy.
- The JPEO should ensure adequate funding to test interoperability of the enterprise strategy.

System

- JTRS is a family of software-programmable and hardware-configurable digital radios consisting of several product lines. The product lines are:
 - JTRS Network Enterprise Domain
 - Ground Mobile Radios
 - Handheld/Manpack/Small Form Fit
 - Airborne/Maritime/Fixed
 - Multi-functional Information Distribution System
 - JTRS Enhanced Multi-band Inter/Intra Team Radios
- JTRS is designed to provide increased interoperability, flexibility, and adaptability to support the many diverse warfighter communications requirements.
- The Enterprise Domain product line provides the waveform and networking gateway, which will be the interface to the Global Information Grid, providing a reach and reach-back capability for the warfighting force.
- The JTRS Ground Mobile Radio product line provides ground radios for tactical and vehicular installation.
- The Handheld, Manpack, and Small Form Fit product line provides radios for dismounted operations and embedding into platforms, primarily the Army’s Future Combat System (FCS).
- The Airborne, Maritime, and Fixed Station product line provides radios for aircraft, naval vessels, and fixed stations.
- The Multi-functional Information Distribution System will provide theater and tactical digital voice, data link, video



communications, navigation, and identification functionality for all host platforms in support of the warfighting force.

- The Multi-band Inter/Intra Team Radio will provide the tactical warfighters with a lightweight handheld radio to meet their diverse communications needs using software radio technology.
- Due to program restructuring, the JPEO was tasked to include Multi-functional Information Distribution System and Multi-band Inter/Intra Team Radio as part of JTRS products lines.

Mission

- Commanders, leaders, and operators from all Services will employ JTRS to communicate and create networks to exchange voice, video, and data during all aspects of military operations.
- JTRS will provide support to combatant commanders and will support joint and coalition operations by providing a capability to communicate across multiple product lines.

Activity

- The JTRS program completed management reorganization under the direction of a JPEO. The Navy became the JTRS Executive Agent in July 2006.
- JTRS “clusters” were renamed as “product lines,” and a new product line added “Networking Enterprise Services.” This product line provides a gateway and waveform management.
 - JTRS Cluster 1 was renamed the Ground Mobile Radio product line and completed Contractor Development Testing of pre-Engineering Development Models
 - JTRS Cluster 5 was renamed the JTRS Small Form Fit, Handheld, Manpack Product line

DOD PROGRAMS

- JTRS Clusters 3 and 4 were merged and renamed Air/Maritime/Fixed
- Developmental testing of new waveforms and software upgrades is ongoing.
- Waveform development and testing by the JPEO, National Security Agency, and the Joint Interoperability Test Command has started.

Assessment

- Test and Evaluation Master Plans for each product line must be updated as a result of the program restructure.
- The network manager for the JTRS program must be coordinated across the major components to ensure interoperability
- The responsibility for defining installation kits for tactical vehicles needs to be clarified.

Recommendations

- Status of Previous Recommendations. This report combines the FY05 JTRS Cluster 1 and Cluster 5 reports. The program

is making progress on FY05 recommendations for Cluster 1 and Cluster 5.

- FY06 Recommendations.
 1. The Army should submit an updated Acquisition Strategy and provide a Test and Evaluation Master Plan for each product line.
 2. The Army should provide an enterprise strategy and multi-level security strategy and develop test concepts for networking waveforms, gateways, and common networking services on all necessary devices.
 3. The JPEO should ensure adequate funding to test interoperability of the enterprise strategy.
 4. The JPEO should ensure a common network manager across the enterprise.