

Multifunctional Information Distribution System - Low Volume Terminal (MIDS-LVT)

SUMMARY

- DOT&E submitted a beyond low-rate initial production report to Congress. The report stated that tests were adequate to determine that the Multifunctional Information Distribution System - Low Volume Terminal (MIDS-LVT), as integrated into the F/A-18 aircraft was operationally effective, but not operationally suitable. Residual issues include digital voice quality and maintainability.
- The MIDS-LVT follow-on test and evaluation will be conducted using the F-16 as the host platform and is expected to be completed during FY05.

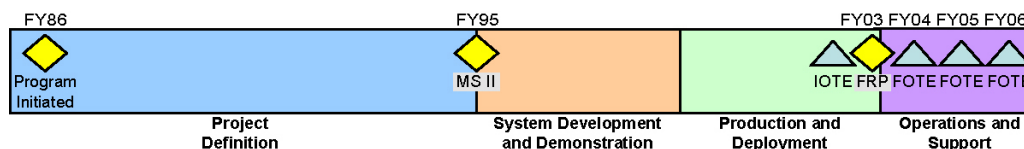
SYSTEM DESCRIPTION AND MISSION

The MIDS-LVT is a communications terminal that provides Link 16 digital data link, digital voice, and, for fighter aircraft, Tactical Air Navigation (TACAN) capabilities when integrated into the host platform. Link 16 is a joint and allied digital data link. It operates on an anti-jam waveform and uses standardized message sets to exchange theater tactical information such as air tracks, engagement orders, targeting information, and platform status. MIDS-LVT provides host platform interoperability with legacy Class II Joint Tactical Information Distribution System-equipped host platforms. MIDS-LVT I has two continuously competing development and production contractors: Data Link Solutions, Incorporated and Via Sat, Incorporated.

Plans are to acquire 1,880 terminals for the MIDS-LVT I and MIDS-LVT II for 13 separate host platform types. The F/A-18 is the Navy's lead host platform and the F-16 (Blocks 40 and 50) is the lead platform for the Air Force for MIDS-LVT I. The integration of the MIDS-LVT I into the F/A-18 served as the primary basis for the MIDS-LVT I initial operational test and evaluation. The F-16 is approximately one year behind the F/A-18 in terms of integration and test schedule.

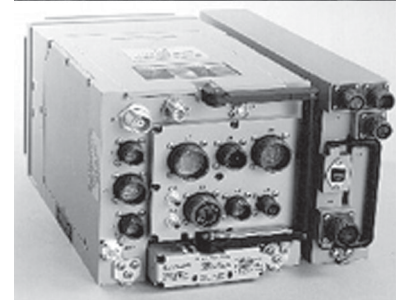
The MIDS-LVT I provides a digital TACAN function for the F/A-18 and F-16 fighter aircraft. This allows removal of the current AN/ARN-118 analog TACAN to provide the physical space needed to install the MIDS-LVT I and its remote power supply. The TACAN function provides air-to-ground and air-to-air modes of navigation information.

TEST AND EVALUATION ACTIVITY



DOT&E supported planning of the follow-on test and evaluation of the MIDS-LVT I. This included planning for integration, joint interoperability, and suitability testing of the integration of the MIDS-LVT I into the Block 50 F-16 fighter aircraft and Electronic Attack (EA)-6B aircraft.

DOT&E is analyzing test data from the operational assessment of the MIDS-LVT integrated in the Block 50 F-16 aircraft. Emerging results indicate improvements in reliability; however, built-in test false alarms are exceeding the requirements threshold by as much as 30 percent.



The MIDS-LVT follow-on test and evaluation will be conducted using the F-16 as the host platform.

NAVY PROGRAMS

F-16 aircrews have consistently rated the situational awareness provided by Link 16 through MIDS-LVT I as a positive mission enhancement. It provides exceptional threat awareness, targeting coordination, and flight safety. The testing organizations have several recommendations to include larger displays, implementation of additional messages related to targeting, and improved display mechanization and integration to increase aircrew situational awareness.

TEST AND EVALUATION ASSESSMENT

The Link 16 data link, enabled in host platforms by hardware such as the MIDS-LVT, requires a program that increases throughput and joint interoperability. Stressed capacity limits are due to many additional Link 16 host platforms and mission areas. The MIDS-LVT program office and host platform program managers should continue to locate and correct the causes of built-in test false alarms. This will restore aircrew and maintainer confidence in the MIDS-LVT fault detection and isolation system.

The Department of Defense and the Services should undertake a coordinated effort to increase Link 16 throughput capacity and improve Link 16 joint interoperability as an interim step until the Joint Tactical Radio System family of communications systems implements the new Wideband Networking Waveform.