Advanced Field Artillery Tactical Data System (AFATDS)

The Advanced Field Artillery Tactical Data System (AFATDS) is a network of computer workstations that processes and exchanges information from the forward observer to the fire support element for all fire support assets (field artillery, mortars, naval gunfire, attack helicopters, and close air support). Features include the automatic processing of fire requests, generation of multiple tactical fire solutions for missions, monitoring of mission execution, and support for the creation and distribution of fire plans. AFATDS is one of the battlefield functional areas comprising the Army Battle Command System (ABCS) and is also used by the Marine Corps.

The AFATDS Initial Operational Test and Evaluation (IOT&E) in 1995 and the subsequent fielding of the AFATDS96 software following the Milestone III acquisition decision established the core capability for this program. The program continues enhancing the fielded capability through testing and release of software upgrades designated AFATDS97, AFATDS98, and AFATDS99. The program is also developing software that integrates into the ABCS Version 6 architecture supporting Army digitization and transformation efforts.

TEST & EVALUATION ACTIVITY

As a result of a series of Limited Users Tests in CY01, the AFATDS obtained a material release in July 2002 of the AFATDS Version 6.3 update for fielded units. This software, previously designated AFATDS99, extended the AFATDS to the firing platforms by providing the capability to produce technical fire solutions.

The AFATDS, as a supporting system, participated in ABCS developmental and operational tests leading to the planned Force XXI Battle Command, Brigade and Below, Maneuver Control System, and Integrated System Control Version 4 IOT&Es in April 2003. The Army has indefinitely postponed this IOT&E due to preparations for anticipated real-world operations.

TEST & EVALUATION ASSESSMENT

The Army conducted no AFATDS specific testing in 2002. Test issues that remain for this program include testing of future upgrades within the system-of-systems concept, interoperability within the ABCS, and development supporting Army transformation efforts. The Army must update the existing AFATDS Test and Evaluation Master Plan to address the testing to include the horizontal interoperability required to operate within the integrated ABCS software architecture and the joint common database.

The ability to evaluate the ABCS components as individual programs is becoming more difficult as the Army continues to integrate the software and foundation products that comprise these systems, as well as integrate the information into the Common Tactical Picture. An assessment of operational effectiveness and suitability is no longer...
limited to what the system provides within a single functional area (fire control for AFATDS), but now expands to what the integration of that information with other functional areas provides to the commander’s ability to prosecute the mission. Testing must be done with all the ABCS components present to assess operational effectiveness and suitability. The Department of the Army should begin to look for Capstone acquisition, development, testing, and fielding strategies to more effectively and efficiently support, fund, and synchronize the ABCS programs.