



NDIA ATE Meeting Army Report

9 December 2008

Agenda

- **Army TMDE Outlook**
- **Major Initiatives for Maintenance Support**
- **Major Army programs that will require support equipment – at least near term**
 - **Ground**
 - **Aviation**
- **DA Investments / Future Test Initiatives**
- **Army Budget Outlook**

Current ATS Policy

IFTE NGATS fills both an Operational Requirement and Implements DoD, HQDA & ASA(ALT) Policy for Automatic Test Systems

GAO
Report to the Chairman, Subcommittee on National Security, Emerging Threats, and Counterterrorism, Committee on Government Reform, House of Representatives
MILITARY READINESS
DOD Needs to Better Manage Automatic Test Equipment Modernization

Satisfies GAO Report on Automatic Test Equipment

GAO issued a report in Mar 03 (GAO-03-451) on how DoD needs to Better Manage Automatic Test Equipment Modernization. *“...limited progress in achieving compliance across all the services with DoD Policy advocating the development of common systems”*

Implements Current USD approved DoD ATS Policy

USD Memorandum dtd 28 Jul 04 designates IFTE as the single DoD approved Army ATS Family in response to GAO Audit 03-451 *“Military Readiness; DoD Needs to Better Manage Automatic Test Equipment Modernization”*

Complies with Current ASA(ALT) ATS Policy

The ASA(ALT) issued compliance memo dtd 22 Oct 04 in support of DoD ATS policy statement

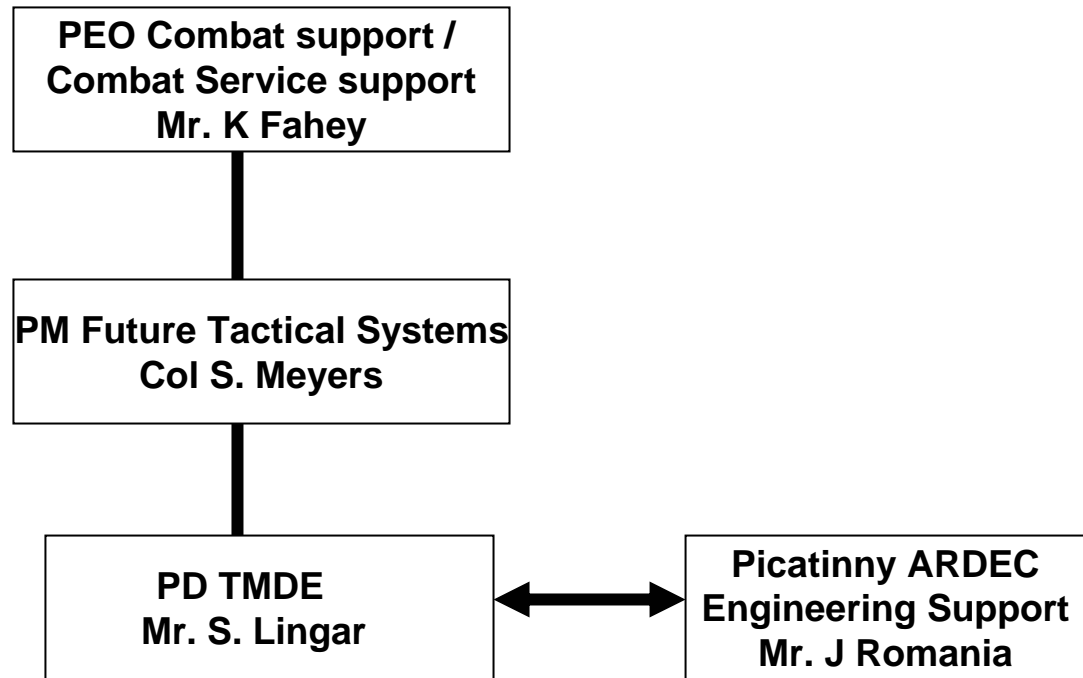
Complies with AR 750-43

DA regulation that implements service policy and **specifically designates IFTE as the Single preferred ATS in the Army**

DoD Policy is Driving to a Single ATE Solution



ARMY TMDE Organization



TMDE Overview

Maintenance Support Device

Next Generation Automatic Test System

TMDE Modernization Program

Calibration Sets



Used by all weapon systems maintainers at Field and Sustainment Levels to perform At platform maintenance.



Supports repair of Line Replaceable Modules at Field and Sustainment Levels for multiple weapon systems.



Provides Field and Sustainment Level testing of weapon systems operational tolerances.



Performs Sustainment Level calibration / quality assurance for General Purpose Electronic Test Equipment that supports weapon systems.

Innovation for Today and Tomorrow's Expeditionary Forces

Army Support Equipment Vision

- At Platform Automatic Test System (APATS) MSD O-Level
- Off Platform Automatic Test Systems (OPATS)

Future Two-Level Maintenance

AT-SYSTEM



Field Maintenance

- Embedded Diagnostics
- Remove & Replace / Plug & Play

Sustainment Maintenance

NGATS Commercial

**Depot & Contractor
D&A/RF/EO/Cal**

- Screen for NEOF
- Test LRU
- Remove and Replace SRU
- Retest RFI



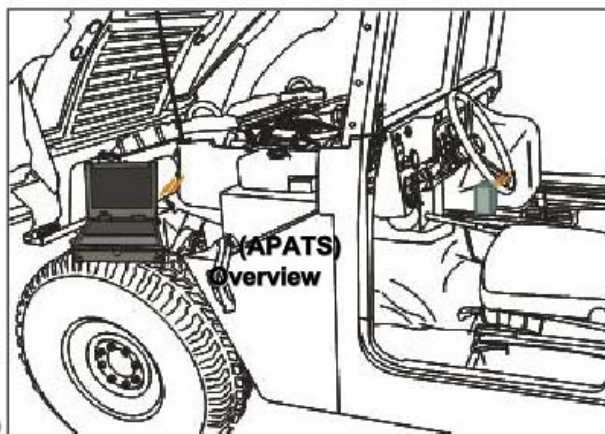
Three Initiatives to Support Maintenance Actions

- **At the Platform - TMDE**
- **Off-Platform - TMDE**
- **VHMS/CLOE/Net-Centric - Army**

At-Platform Automatic Test Systems (APATS) Overview



Maintenance Support Device- Version 2 (MSD-V2) is the current at-platform general-purpose automatic test system supporting test and diagnostic requirements of current/future forces.



Wireless Internal Combustion Engine (WICE) is the next generation ICE kit to provide at-platform automatic test diagnostics and wireless connectivity between MSD-V2 and current/future tactical vehicles.



Vehicle Integrated Diagnostic Software (VIDS) for use in the Vehicle Computer (VC) in all current production, RECAP, and new production tactical vehicles for on-board embedded diagnostics.

Hook up on 1553, vehicle buses using interfaces cards
system level testing that leads to fault isolation to a single LRU or cable

5 June 2008

Innovation for Today and Tomorrow's Expeditionary Forces

Next Generation Automatic Test System (NGATS)



Automatic Test System

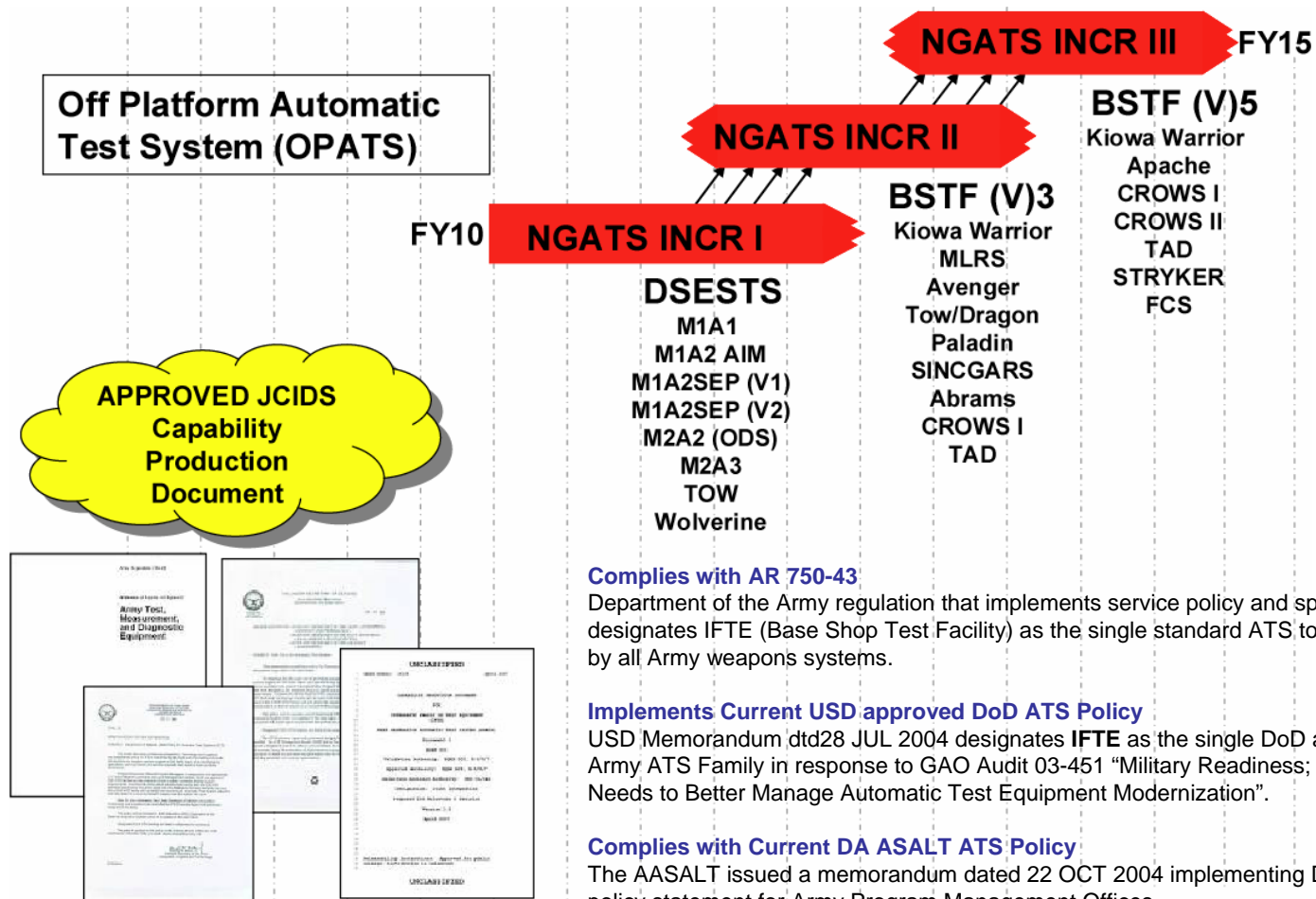


TPS Storage

NGATS Attributes:

- *Future Combat System (FCS) Associate Program*
- Army's next iteration of Off-Platform Automated Test System (ATS) in the **Integrated Family of Test Equipment (IFTE)**
- **IFTE/NxTest/Joint/DoD compliant for fault isolation, diagnosis, and fault identification of current systems**
- **Mobile and modular test system** comprised of flexible and reconfigurable ATS hardware, software, and Test Program Sets (TPS).
- **Incrementally replaces DSESTS, IFTE BSTF(V)3, and IFTE BSTF(V)5.**

Off Platform ATE Modernization Strategy



Complies with AR 750-43

Department of the Army regulation that implements service policy and specifically designates IFTE (Base Shop Test Facility) as the single standard ATS to be utilized by all Army weapons systems.

Implements Current USD approved DoD ATS Policy

USD Memorandum dtd28 JUL 2004 designates **IFTE** as the single DoD approved Army ATS Family in response to GAO Audit 03-451 "Military Readiness; DoD Needs to Better Manage Automatic Test Equipment Modernization".

Complies with Current DA ASALT ATS Policy

The AASALT issued a memorandum dated 22 OCT 2004 implementing DoD ATS policy statement for Army Program Management Offices.

Status NGATS Program

- **DT complete**
- **OT complete 18 November 2008**
- **Final report to TMDE 45 days after completion of OT**
- **Milestone “C” 1st Qtr 2009**
- **LRIP award anticipated 1st QTR 2009**
- **FY10 - FY15 POMD for ~250 systems consisting of IFTE NGATS, trucks, generators, shelters, and ancillary equipment as well as government administration cost**

Major Army Programs

Ground Modernization Time Lines – Require Support Equipment

- Abrams:

- Modernization is for an end state of 15 HBCTs (70 Abrams per brigade)
- Start date FY 17
- Complete date FY 26

- Bradley:

- Modernization is for an end state of 15 HBCTs (140 Bradleys per brigade)
- Start date FY 17
- Complete date 26

- Stryker:

- Modernization for an end state of 8 SBCTs (332 Strykers per brigade)
- Start date FY 17
- Complete date FY 25

- Paladin:

- Modernization is for an end state of 600 Paladins (16 HBCT Battalions)
- Start date FY 12
- Complete date FY 20
- FCS NLOS-C augment Paladin 15 Bn 2017 - 2031

- FCS:

- Start Fielding 2017 – 2031
- **Support modernization with spin-off technology**

- JTLV:

- Three Development contracts awarded 10/29/08
- 58,000 vehicles to replace HMMWV

Aviation Systems Requiring Off-platform test equipment

- **Apache – Active Army - 2008**
 - **PBL**
- **Apache National Guard - AVCRAADS - 2007**
 - **Off-platform EOTF**
- **Kiowa Warrior (NG/Active) – 2007**
 - **Off-platform EOTF**

TRADOC Big Five Investments

- Battle Command Network
 - Increase access & availability to all echelons
- Counter IEDs & Mines
 - Detect, identify & neutralize – safe standoff distance
- Power & Energy
 - Increased continuous power & fuel economy
- Human Dimension
 - Improve mental, moral & physical capability to performance
- Training
 - Train prior to deployment

Future Army Test Initiatives

- **Ensuring that legacy systems are appropriately replaced by NGATS**
- **Support MSD modernization**
- **Eventual evaporation of At-Platform diagnostics support equipment**
 - **Accomplished through Embedded Prognostics/Diagnostics (FCS)**
 - **Timeline is unpredictable and dependant on the rate at which “legacy” equipment is displaced by FCS technologies**

Army Budget Outlook

- Forecasters are predicting a Defense downturn
- Major program decisions moved right e.g. restructuring of FCS decision; Tanker - new administration decision
- FY 10 – 15 POM provided as a recommendation to new administration
- Anticipate only symbolic changes in FY 10
 - President Elect Obama on record - no major changes for at least 18 months
- Expect bottoms-up drill for the FY 11 submission

Questions

VHMS/CLOE/Net-Centric - Objective

- **Embedded Diagnostics – reduces on platform equipment/off platform maintenance**
- **Interactive electronic technical manuals**
- **CLOE provides an automated means of collecting and reporting platform status**
- **CLOE – enabled data flows enables fleet trending, analysis and reliability**
- **CLOE data will assist contractors with the information necessary to optimize system readiness**
- **CLOE supports Conditioned-based maintenance**
- **CLOE is the glue that provides a robust logistics operating environment critical to Net-Centric logistics**