

Air Force Materiel Command



DT&E Challenges and Opportunities

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HQ AFMC/A3
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Public Service Announcement

If you are reading this, thank a teacher

If you are reading this in English...thank a veteran



Purpose

***To provide a briefing on current AFMC DT&E
Enterprise challenges and opportunities to
stimulate discussion***



Dead Guy Quote

“The only true knowledge exists in knowing that you know nothing... dude that’s us!!”

Bill & Ted’s Excellent Adventure



Overview

- **Current AFMC DT&E Enterprise challenges**
 - AFMC management challenges
 - Technology challenges
- Discussion

AFMC DT&E

Airframe/Propulsion/Avionics

Ground Test

Test Pilot School

F-16 JASSM Launch

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DT&E Enterprise

- **CHALLENGE: AFMC DT&E processes are currently sub-optimized by fragmentation of command and control**
 - Mission and priorities suffer
 - Reduced ability to develop workforce and sustain key operating relationships
 - Process improvements challenging to institutionalize across enterprise
- **OPPORTUNITY: Strengthen T&E enterprise to optimize and standardize processes**

Requires AFMC to embark on long-term path to improve T&E command structure



T&E Enterprise Strategic Planning

- **CHALLENGE:** Lack of comprehensive strategic roadmap to guide T&E investments and POM building across the T&E enterprise
- **OPPORTUNITY:**
 - Link strategic planning to more deliberative programming
 - Provide input to HAF/TE & A3O-AR Capability Roadmaps
 - Provide input to TRMC T&E Resources Strategic Plan



Roadmap Provides Information for Programming Decisions



Pre-Milestone B T&E Support

- **CHALLENGE:** Enhancing early tester involvement through more robust T&E support during pre-milestone B activities
- **OPPORTUNITY:** Through D&SWS initiative TE-1-16, T&E Pre-Milestone B Support, two new processes have been established and changes to TEMP format and content are being codified
 - HPT Support Process
 - JCIDS Document Review Process
 - New TEMP format and content as well as new template



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AAC T&E Challenges

- **CHALLENGES:**

- **Miniaturized Instrumentation**

- Aircraft platforms
- Weapons Technology

- **Modeling & Simulation**

- Improved operational analysis
- Predictive/Real-time scheduling of air space

- **OPPORTUNITIES:**

- Need for sub-miniature circuitry
- Need for modeling and simulation tools of complex airspace

•Wireless sensors



•Mini Base Station



•Integrated Telemetry Unit



AAC T&E Challenge: HEL/HPM Data Collection

- **CHALLENGE:**

- Testing of high energy lasers (HEL)
- Testing of high power microwave (HPM)

- **OPPORTUNITIES:**

- Need for rugged and miniaturized sensors and data collection packages
- Need wideband HPM sensors
- Need multi-wavelength laser detection systems



