

PEO STRI

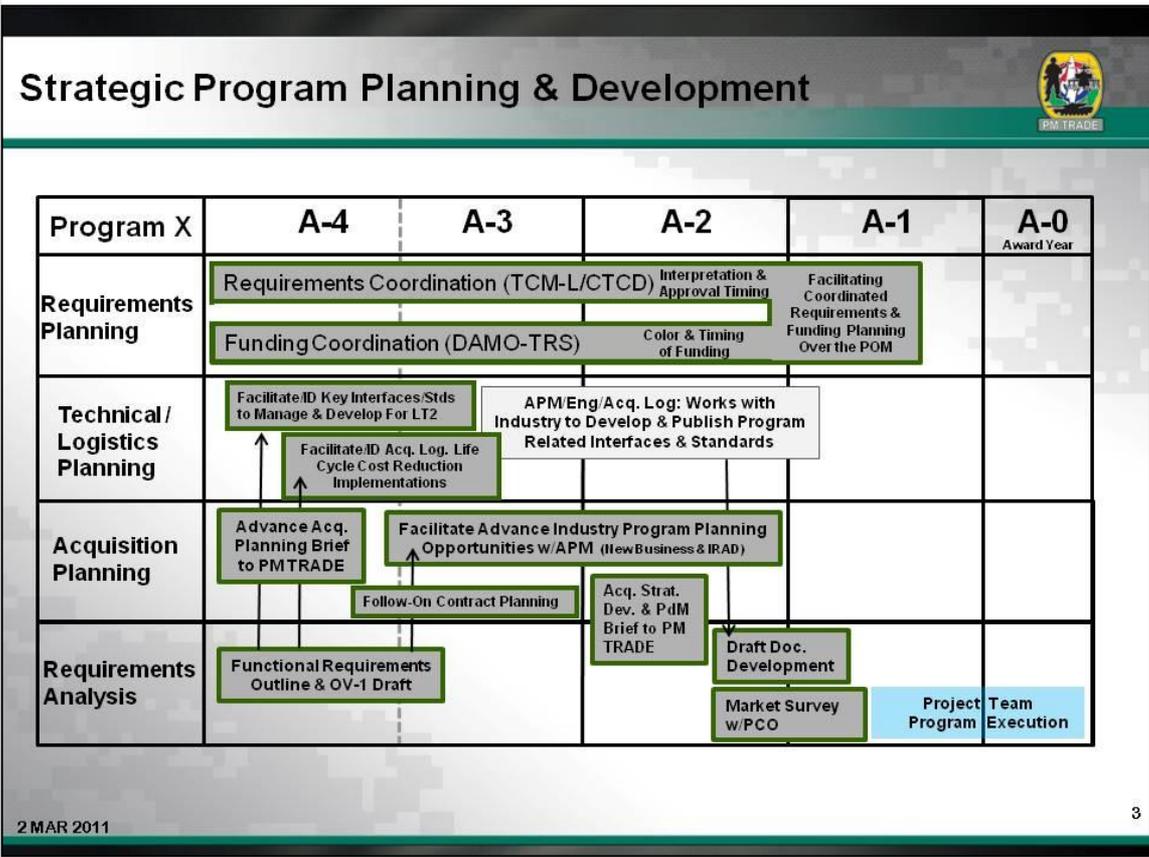


Visit the Live Training  
Community Portal at:  
[LT2Portal.org](https://LT2Portal.org)



**COL Mike Flanagan**

**PM, Training Devices (PM TRADE)**



1. Team Live Training
2. Emerging Requirements
3. Live Training Architecture
4. Strategic Partners
5. Business Opportunities
6. LT2 Portal



## LIVE TRAINING COMMUNITY



HOME WELCOME NEWS/EVENTS PRODUCTS STANDARDS REFERENCES DEVELOPERS PM TOOLS SUPPORT LOGOUT | Michael Dillon

### WELCOME



COL Michael P. Flanagan  
Project Manager, TRADE



COL Patrick E. Connors  
Director, TCM-Live

Welcome to the Live Training Community portal, where we develop, support and communicate our Live Training initiatives for the Army. Our intent is to facilitate communication with developers, users, and our industry partners to support standards and common solutions for Live Training. Our goal is to reduce total ownership costs while improving quality, interoperability, and reusability across Live, Virtual, Constructive, and Joint training/test domains for our Soldiers, our joint Services partners, and the Nation.

### WELCOME

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### PM TOOLS

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#### PM TRADE - 2014 Vision

Based on anticipated challenges facing the U.S. Army, this is the vision of Project Manager Training Devices (PM TRADE) for 2014. Years of war, service, and sacrifice have shaped the U.S. Army from a division-centric force to a brigade-centric force that is more agile, adaptable, and lethal than ever before. These agile forces are geographically focused and the Army has shifted priorities from Central Command to Pacific Command. Even as we face daunting defense budgets, our Army remains prepared to operate and succeed in any operational environment (OE).

Live Training provides the foundation to moderate Army training in support of this more deployable, sustainable, and information-age enabled force. Live Training capabilities are standard at the Army's home stations, training centers, and complexes and offer an integrated mix of system and non-system live, virtual, constructive, and gaming training aids, devices, simulators, and simulators (TADS). All live training systems are designed to offer Soldiers to deliver valuable after action reviews that capture force-on-force and/or force-on-object scenarios and outcomes that lead to higher order learning for Soldiers preparing for complex deployment contingency operations.

The men and women of PM TRADE are proud of the state-of-the-art training devices that are cutting-edge training devices to our Army and the Army's training community. Our purpose is to provide the Army with the tools and resources to train our Soldiers. Our purpose is to provide the Army with the tools and resources to train our Soldiers. Our purpose is to provide the Army with the tools and resources to train our Soldiers. Our purpose is to provide the Army with the tools and resources to train our Soldiers.

The PM TRADE and the Training and Test Center (TTC) are the primary providers of realistic training environments and equipment in support of Decisive Action Operations.

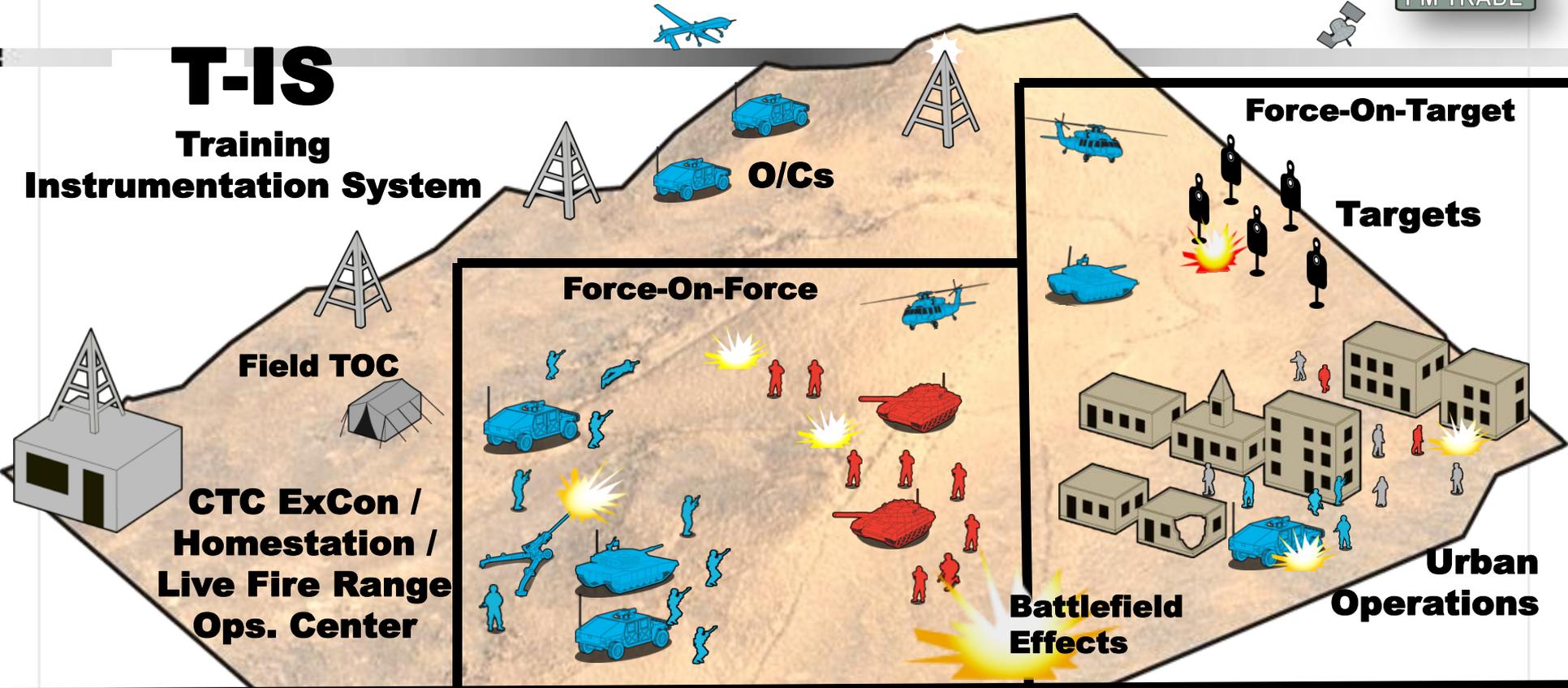
Replicating the complexities of OEs - from sustainable peace and insurgency to general war - is key to the success of Live Training. No other training domain brings Soldiers closer to the heart-pumping excitement, physical activity, and hands-on involvement of actual boots on the ground.

- Soldiers who go through our training realistically state that NO OTHER training brings them closer to the heart-pumping excitement... of boots on the ground in Live training.

## 2014 Vision

## T-IS

**Training Instrumentation System**



### ExCon & Comms

ExCon, AAR, RF Comms. ABCS, & Network Data Management

**PM CTIS T-IS**

### Simulated Fire

Combined Arms Engagement Pairing  
BLUFOR & OPFOR

**PM LTS A-TESS**

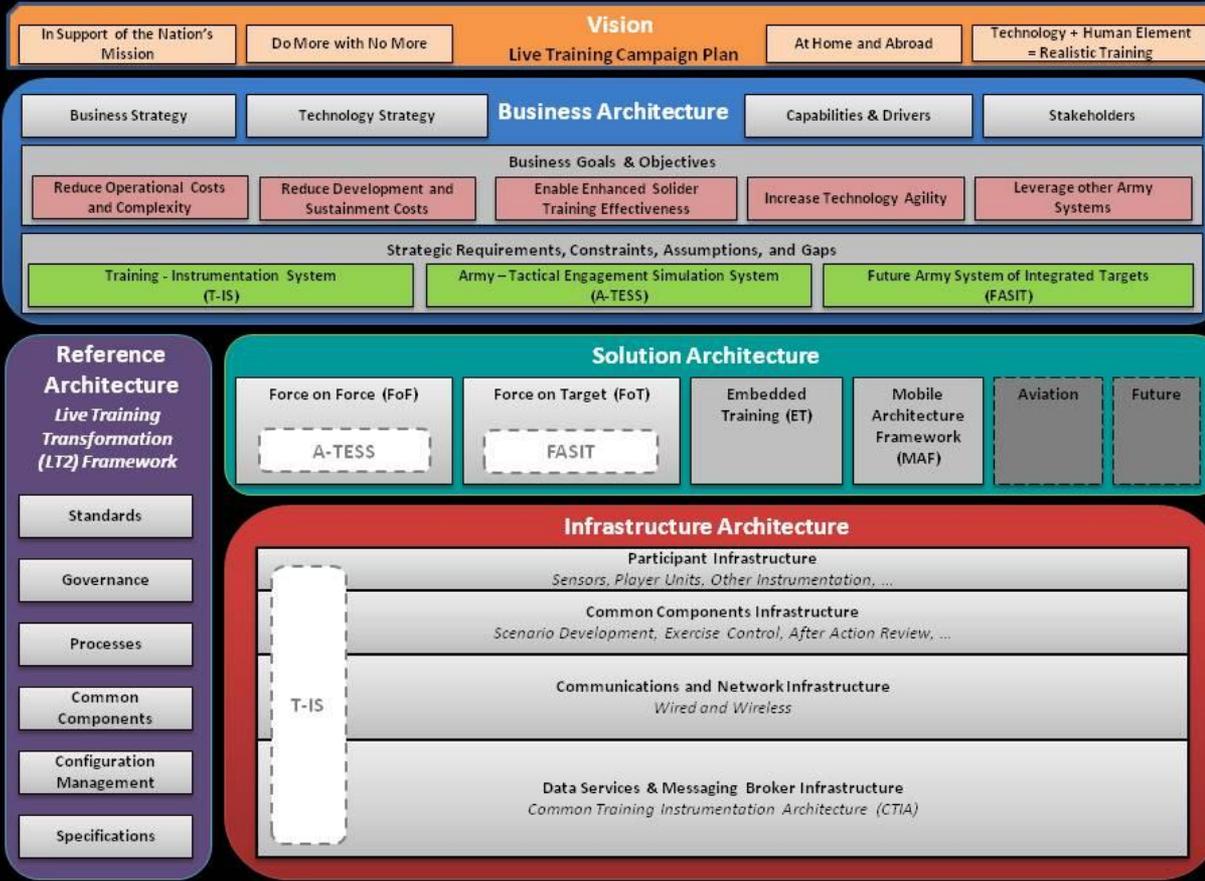
### Live Fire

Instrumented Urban Operations,  
& Battlefield Effects

**PM DT FASIT**

## PM TRADE Enterprise Architecture

11 June 2012



## Emphasis on a PM TRADE Integrated Portfolio Architecture Management Approach

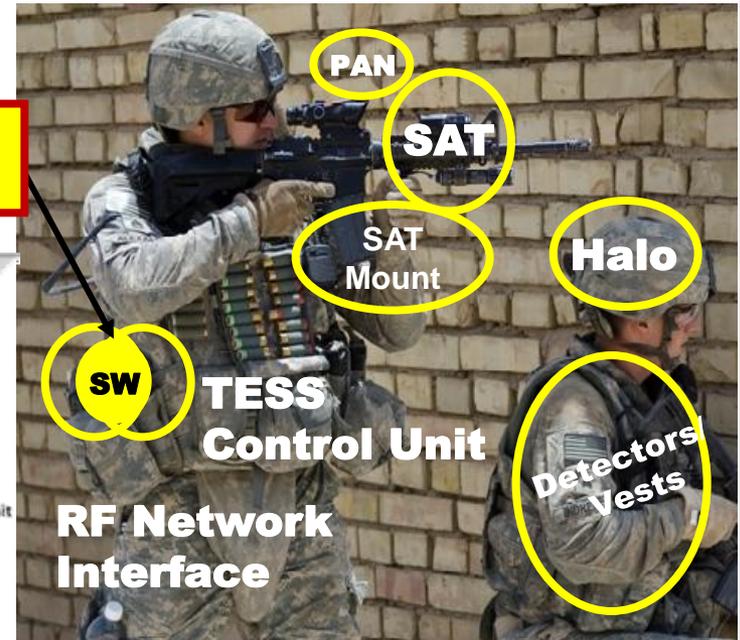
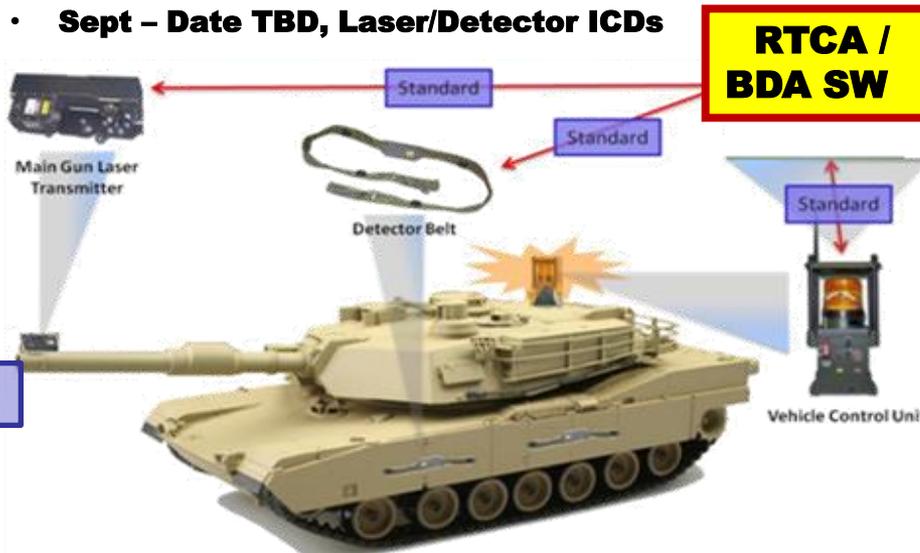
### Future Architecture Alignment:

- **Common Enterprise Architecture approach**
- **Unified FoF: TESS, IS**
- **Unified FoT: Targets, battlefield realisms, Video, IS**
- **Develop New Solution Architectures**
  - **Embedded Training**
  - **Aviation**
  - **MAF**
  - **Future**

**Industry participation in TRADE Architecture development is essential**

# A-TESS/MILES Architecture & Standards Development Opportunities

- 1) **Defining Key Interfaces and SW Architecture is 1<sup>st</sup> step to developing appended/embedded solution.**
- 2) **Working with Industry to develop key standards, interfaces, performance parameters, and ICDs .**
  - **PAN Std, Radio-TESS ICD, Laser Detector ICD, Laser Transmitter ICD, Power Std, AV Cue Std, Equipment Mounting, RTCA/BDA table, .....**
- 3) **Industry Work Shops held ~ Quarterly - Dates & Topics Posted on LT2 Portal ([www.lt2portal.org](http://www.lt2portal.org))**
  - **May 14-15, Orlando, A-TESS Laser Workshop**
  - **July 10 - 11, Orlando, A-TESS Arch. Workshop**
  - **Sept - Date TBD, Laser/Detector ICDs**





## □ Initiatives

- Resource sharing and cross-pollination
- Player Unit (PU) radio and Spectrum
- Immersive environments
- Architecture migration & evolution
- Cultural training (role players)

## □ Common Themes

- Common Training Instrumentation Architecture (CTIA)
- Consolidated Product-line Management (CPM)
- **Future Army System of Integrated Targets (FASIT)**
- Range Instrumentation System Control (RISCon)
- **Capabilities & Requirements synchronization**
- Information Assurance synchronization
- Integrated Development Environment

***Train to Fight, Fight to Win  
TOGETHER***



## Test and Training Initiatives

- 1. Signed MOA with multiple organizations to develop common technologies in support of Live Test and Training Events**
  - a) PM ITTS
  - b) ARL HRED STTC
  - c) ATEC
  - d) ATSC
  - e) DUSA-TE
  - f) DAMO TRS
- 2. Established testbed at STTC as foundation for effort.**
- 3. Developing technology / capability gaps to be addressed by group.**

- Testing community will leverage training capabilities to satisfy future requirements
- Develop, demonstrate and transition technologies and/or systems that support Army Live Testing and Training requirements

### MOA

TRADE-2011-01

#### MEMORANDUM OF AGREEMENT

Between

Project Manager Training Devices (PM TRADE),

Project Manager Instrumentation, Targets and Threats Simulators (PM ITTS)

Army Test and Evaluation Command (ATEC),

Deputy Under Secretary of the Army – Test and Evaluation (DUSA-TE),

Army Research Lab Simulation and Training Technology Center (ARL STTC)

Army Training Support Center, TRADOC Capabilities Manager – Live (ATSC, TCM-L),

and

Army G-3/5/7 (DAMO-TRS)

SUBJECT: Army Live Test and Training Common Technology Initiative

1. **Purpose.** This Memorandum of Agreement (MOA), between PM TRADE, PM ITTS, ATEC, DUSA-TE, ARL STTC, TCM-L, and DAMO-TRS, formally establishes an Army Live Test and Training Common Technology Initiative in the pursuit of common products and capabilities. This MOA defines the responsibilities of all organizations with respect to this effort and its initial focus of pursuing common development and use of test and training capabilities/technologies. Specifically, the efforts pursued under this Initiative will promote the development of new and emerging products and applications that support the test and training communities by planning for, creating, and sustaining a Test and Training Test Bed to assist in the development (e.g., build-a-little, test-a-little, build-some-more) of new technologies, standards and products to overcome capabilities' shortfalls of existing and future systems.

#### 2. References.

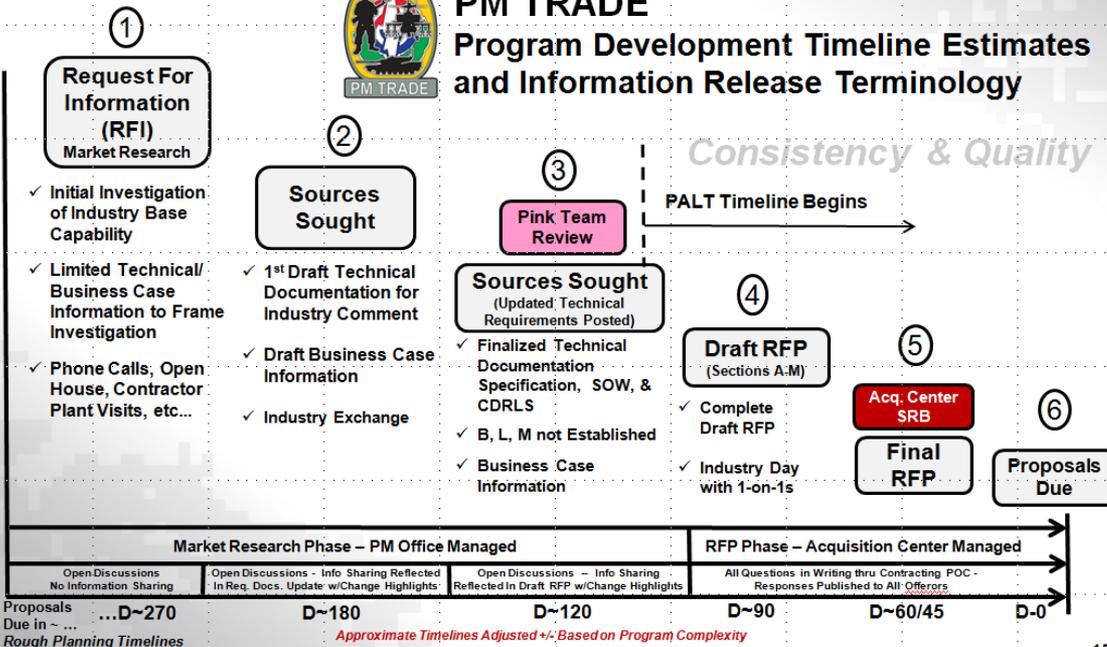
- a. Memorandum, Secretary of Defense, 7 September 2006, Subject: Test and Training Interdependency Initiative.
- b. Memorandum, Secretary of the Army, 26 February 2007, Subject: Test and Training Interdependency Initiative.
- c. Memorandum of Agreement, U.S. Army Test and Evaluation Command (ATEC) and Deputy Chief of Staff of the Army G-3/5/7 (DAMO-TR), 14 May 2007, Test and Training Interdependency Initiative.

## Industry Business Development Planning Map Communicating With Industry



### PM TRADE

### Program Development Timeline Estimates and Information Release Terminology



## “Rosetta Stone”

- AI 16: Communications with Industry
- Common Terminology
- Consistent Process
- Improving RFP Quality



<u>Organization</u>	<u>Program</u>	<u>RFP Release*</u>	<u>Award Date*</u>
PM CTIS	FDRIS	Aug 2012	Dec 2012
PM CTIS	AMITS	Sep 2012	Apr 2013
PM LTS	OneTESS	Jan 2013	Sep 2013
PM LTS	IEDES 1.5	Cancelled	Cancelled
PM LTS	CATSD	Nov 2012	Apr 2013
PM DT	AGI	22 Jun 12	Sep 2012
PM DT	HMDS Trainer	TBD	TBD

**\*All Dates are Tentative**

**Ft. Drum RIS -- Range Instrumentation System**

**AMITS -- Army Mobile Instrumented Training System**

**OneTESS -- One Tactical Engagement Simulation System**

**IEDES -- Improvises Explosive Device Effects Simulator**

**HMDS -- Husky Mounted Detection System**

**CATSD -- Common Armor Target Silhouette Development**

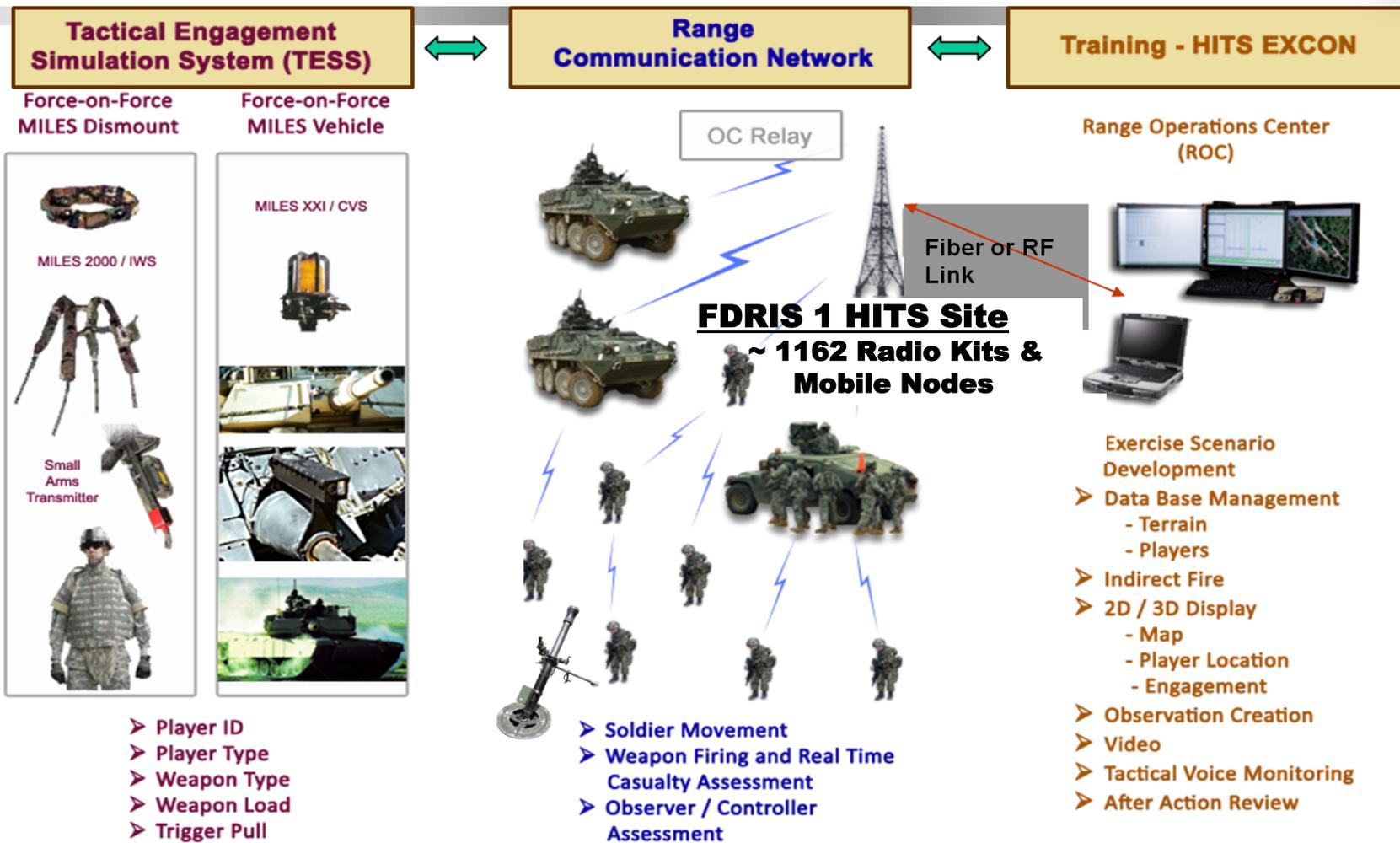
**AGI -- Air Ground Integration**

## Description/Summary of Program Requirements

PEO STRI Project Manager for Training Devices (PM TRADE) has a requirement to procure one suite of communications networking equipment and radios for the Fort Drum HITS fielding in 3Q13.

The communications system provides the bidirectional interface between the HITS exercise control subsystem (EXCON) and the vehicles and soldiers equipped with U.S. Army Tactical Engagement Simulation Systems. This effort includes production and shipping of the network infrastructure and radio player units, individual and vehicle mounting kits, logistics data, spares, manuals, TESS and CTIA interface, New Equipment Training, system verification and validation, and technical support to the EXCON production vendor. PM TRADE will not fund any development under this effort.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES												
<ul style="list-style-type: none"> <li>• Contract Vehicle: TBD</li> <li>• Firm Fixed Price (Tentative)</li> <li>• Lowest price technically acceptable (Tentative)</li> </ul>	<ul style="list-style-type: none"> <li>• 9 months</li> <li>• First Delivery 5 Months After Award</li> </ul>	<table border="0"> <tr> <td>May 12</td> <td>Jun 12</td> <td>Aug 12</td> <td>Dec 12</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RFI</td> <td>Sources Sought</td> <td>RFP</td> <td>Contract Award</td> </tr> </table>	May 12	Jun 12	Aug 12	Dec 12					RFI	Sources Sought	RFP	Contract Award
May 12	Jun 12	Aug 12	Dec 12											
RFI	Sources Sought	RFP	Contract Award											
POINT OF CONTACT	FUNDING	CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)												
<p>Name: PM TRADE            Organization:            Phone: (407) 384-5201            Email: TRADE@peostri.army.mil</p>	<ul style="list-style-type: none"> <li>• OPA FY 12 ~ \$5M ~ \$6M</li> </ul>	<ul style="list-style-type: none"> <li>• Current contract is Interim Range System (IRS) by Saab Training USA</li> </ul>												



**Technical Requirements/Capability Very Similar to IRS Specification**

## Description/Summary of Program Requirements

PEO STRI Project Manager for Training Devices (PM TRADE) has a requirement to procure up to nineteen (19) Army Mobile Instrumented Training Systems (AMITS) at a fielding rate of one per quarter beginning in 4Q13 and ending in 4Q18. The AMITS, with existing TESS and future OneTESS, will provide the end-to-end Home Station Training Capability in a mobile configuration. AMITS consists of a mobile instrumentation control center with AAR capability, a bi directional communications network between the vehicles and soldiers equipped with TESS/OneTESS, and has the capability for remote configuration management updates. OneTESS indirect fire pairings will rely on AMITS to complete player RTCA pairings and not the MILES laser. OCONUS sites include Hawaii, Alaska, Germany, and Korea. PM TRADE will not fund any development under this effort.

### ACQUISITION STRATEGY

- Contract Vehicle: TBD
- Contract Type: TBD
- Challenge is a system flexible enough to meet spectrum requirements for CONUS and OCONUS with reduced support / sustainment costs

### PERIOD OF PERFORMANCE

- Base year award with 4 option years
- First Delivery 8 Months After Award

### MILESTONES



### POINT OF CONTACT

**Name:** PM TRADE  
**Organization:**  
**Phone:** (407) 384-5201  
**Email:** TRADE@peostri.army.mil

### FUNDING

- OPA FY 13 – 18: ~ \$143 Million
- Base award ~ \$7M FY13 (1 Range)
- FY14 ~ \$29M (4 Ranges)
- FY15 ~ \$30M (4 Ranges)
- FY16 ~ \$30M (4 Ranges)
- FY17 ~ \$31M (4 Ranges)
- FY18 ~ \$16M (2 Ranges)

### CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

- New procurement

# One Tactical Engagement Simulation System (OneTESS)



## Description/Summary of Program Requirements

Mission – OneTESS Increment 1 will provide a battalion and below exercise live Force-on-Force training capability for the IBCT (dismounted) mortars (60mm/81mm/120mm) and Forward Observer at Home Station, Combat Maneuver Training Centers, and deployed sites.



OneTESS will provide the ability to integrate into training instrumentation systems such as the Homestation Instrumentation Training System (HITS), Combat Training Center-Instrumentation System (CTC-IS), and interoperable with I-MILES.

ACQUISITION STRATEGY	PERIOD OF PERFORMANCE	MILESTONES			
<ul style="list-style-type: none"> <li>TBD based on results of Market Research</li> </ul>	<ul style="list-style-type: none"> <li>Base year award with option years</li> </ul>	Jul 12  RFI	Sep12  Sources Sought	Jan 13  RFP Release	Sep 13  Contract Award
POINT OF CONTACT	FUNDING	CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)			
Name: PM TRADE Organization: Phone: (407) 384-5201 Email: TRADE@peostri.army.mil	<ul style="list-style-type: none"> <li>~ \$14M OPA over FY13 – FY15</li> </ul>	<ul style="list-style-type: none"> <li>New procurement</li> </ul>			

# OneTESS Mortar Capability Major Components/Interfaces

## OneTESS

### Mortar Components

**Mortar Kit (60mm, 81mm, 20mm)**

- Barrel collar
- Mortar simulator round
- WOM processing unit
- Optical sensor
- Player unit (w/ radio interface)

### **Forward Observer Kit**

- Player unit
- FO Tablet



**Interfaces to  
CTCs and HITS  
via the  
Instrumentation  
Radio**



# Target Modernization Common Armor Target Silhouette Development



## Description/Summary of Program Requirements

The Common Armor Target Silhouette will be designed and developed to create a family of standard armor silhouettes usable on all live fire training ranges, allowing for the creation of a National Stock Number to support ordering and resupply, and to reduce the overall weight of the armor silhouettes. The aim will focus on the manufacturing, replication, recycling, durability, and ability to support current Combat Identification (CID) technologies. This effort will develop only a limited number of target silhouettes. If the concept/technologies prove viable, additional silhouettes will be developed. All silhouette parameters are defined within TC 25-8.

This effort was delayed to support a detailed Cost Benefit Analysis in conjunction with PM ITTS to validate/quantify the life cycle cost avoidances to be realized via the change in silhouette materials.

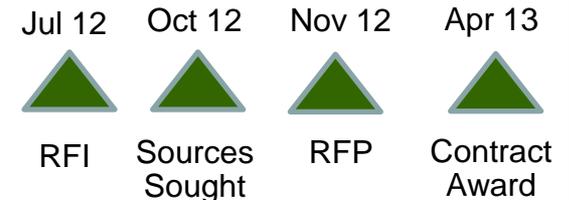
### ACQUISITION STRATEGY

- CARTS IDIQ; LOT III
- Competitive
- Single Award
- Two phases: Definition and Prototype
- Options are to define and build each TC 25-8 armor silhouette type

### PERIOD OF PERFORMANCE

- April 2013 to January 2014 (base)
- February 2014 to May 2015 (options)

### MILESTONES



### POINT OF CONTACT

Name: PM TRADE  
 Organization:  
 Phone: (407) 384-5201  
 Email: TRADE@peostri.army.mil

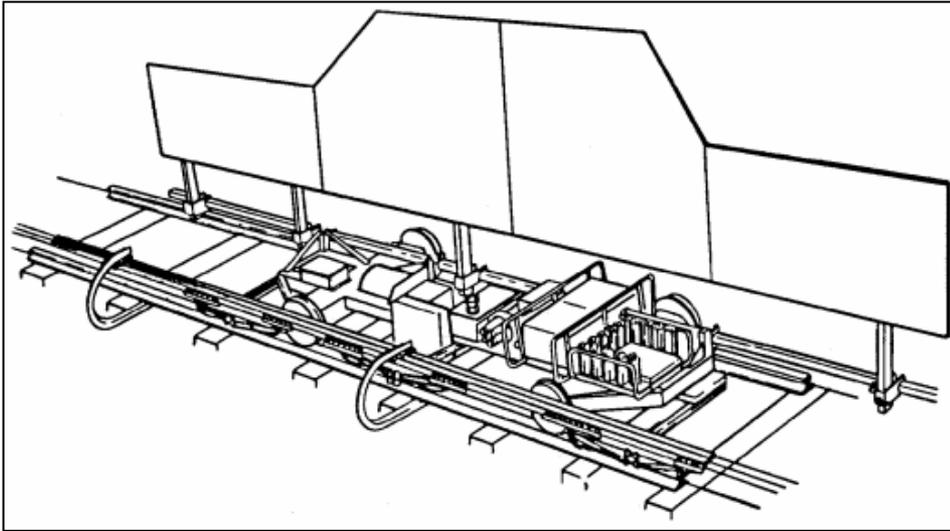
### FUNDING

- ~ \$100K RDT&E Phase I
- ~ \$300K RDT&E Phase II
- ~ \$1,500K RDT&E (options)

### CURRENT CONTRACT/ORIGINAL DEVELOPER/OEM (IF RECOMPETE)

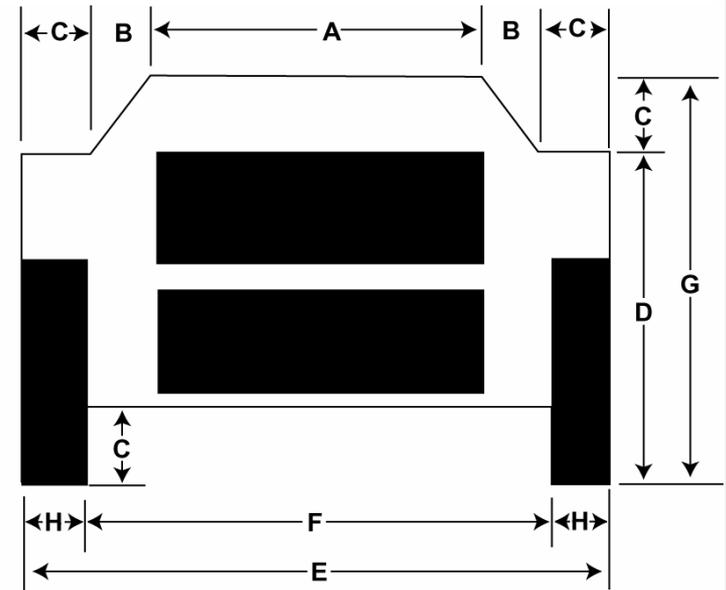
- New procurement

# Target Modernization Common Armor Target Silhouette Development



- **The CATS silhouettes will support the ROC-V/CID overlays and thermal overlays**

- **The CATS silhouettes geometry and profiles will meet the defined standards in TC 25-8**
- **There are no expected modifications to be made to the lifting devices to support the CATS silhouettes other than the holding clamps**



 THERMAL MODULE PLACEMENT

## Description/Summary of Program Requirements

AGI-Village is standardized group of 3D facades configured to support Aviation crew qualification and integration training for air and ground elements during advanced tables.

### Requirements/Capabilities:

- 14 base structure "Urban Ballast"
- 13 buildings
- Ft Bliss, TX, Ft Carson, CO, and Yakima Training Area, WA  
Option – Ft Bragg, NC



<b>Acquisition Strategy</b>	<b>Period of Performance</b>	<b>Milestones</b>
-CARTS IDIQ; LOT IV • LPTA (Low Price Technically Acceptable) • Single award	FY12 (4 months)	CARTS 3QRTFY12      4QRTFY12   RFP Release              Award
<b>Point of Contact</b>	<b>Funding</b>	<b>Current Contract/Original Developer/OEM (if recompetete)</b>
Name: PM TRADE Organization: Phone: (407) 384-5201 Email: TRADE@peostri.army.mil	• FY12 ( OPA ) ~ \$3.6M	

## Description/Summary of Program Requirements

The U.S. Army is procuring a replacement to the Husky Mounted Detection System (HDMS) currently deployed to Operation Enduring Freedom to support mine-clearing operations. The product manager has requested PM TRADE to develop and field a realistic training system to support the replacement vehicles that will train operators in using the vehicle to identify buried improvised explosive devices.



The specific requirements are being developed. We anticipate that the training system will incorporate the current IEDES with enhanced capabilities. Software development initiatives will replicate the tactical software \Ground Penetrating Radar. The system will also interoperate with Instrumentable MILES. Approximately 300 training systems will be procured.

Acquisition Strategy	Period of Performance	Milestones
-TBD (based on RFI)	TBD	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>4QTRFY12</p>  <p>RFI</p> </div> <div style="text-align: center;"> <p>4QTRFY13</p>  <p>Award</p> </div> </div>
Point of Contact	Funding	Current Contract/Original Developer/OEM (if recompetete)
<p>Name: PM TRADE</p> <p>Organization:</p> <p>Phone: (407) 384-5201</p> <p>Email: TRADE@peostri.army.mil</p>	<ul style="list-style-type: none"> <li>• FY13 (RDTE) ~ TBD</li> <li>• FY14/15 ( OPA) ~ TBD</li> </ul>	

# www.LT2Portal.org

LT2 Portal - Windows Internet Explorer

http://www.lt2portal.org

Favorites

LT2 Portal DocuTalk: Add Response

Eng Safety Tools



## LIVE TRAINING COMMUNITY



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### NEWS/EVENTS

#### Events

SUBSCRIBE

There are no events currently scheduled.

#### News

posted on: May 26, 2012

**Future FM TRACE Capability Documents**

posted on: April 16, 2012

**Second Generation Product Line Management (2GPLM) article**

posted on: February 24, 2012

**PM TRADETSIS Site Update - Presented at IEDS Industry Day 22 Feb 2012**

posted on: February 09, 2012

**February 2012 Army Magazine - "Tomorrow's Training Technologies - Today"**

posted on: December 05, 2011

**Addressing Live Training Challenges at HSEC 2911**

posted on: December 18, 2011

**UCF Student Given Military Honor**

posted on: December 18, 2011

**National Defense Magazine article "Battle-Scarred Troops Now Message for Army Training: Get Fed"**

posted on: November 16, 2011

**2012 PEO STIRI Desk Site Reference Guide**

posted on: November 02, 2011

**Army Discipline Publication (ADP) 3.0, Unified Land Operations**

posted on: November 09, 2011

**PM TRADE Industry Panel Brief**

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### NEWS/EVENTS



### PRODUCTS



### STANDARDS



### REFERENCES



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### FM TOOLS



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