Overview of the Targets Management Office

4 October 2012

Briefed by:
Mr. Barry Hatchett
Lead PD, PMITTS, PEO STRI
256-842-6797  DSN: 788-6797
e-mail: barry.hatchett@us.army.mil
Agenda

• Overview of Targets Management Office
  • Mission
  • Organizational Structure

• Domains
  • Aerial
  • Ground
  • Target Control
  • Virtual
  • Other

• Summary
• Manage total life cycle of targets, operational threat vehicles, target control systems, and ground range systems used in live and virtual testing and training.

• Provide best value acquisition, superior life cycle sustainment, and operation for the U.S. Army, DoD, and international customers.

• Execute missions as assigned or directed by PEO STRI and PM ITTS.
Organization

PEO STRI
PEO: Dr. James T. Blake
Program Executive Officer
U.S. Army Program Executive Office for Simulation, Training and Instrumentation

PM ITTS
PM: COL Sharlene Donovan
Project Manager for Instrumentation, Targets, and Threat Simulators
ATTN: SFAE-STRI-PMITTS
12350 Research Parkway, Orlando, FL 32826-3276
(407) 384-5250 DSN 970-5250
email: Sharlene.Donovan@us.army.mil
DPM: Mr. Richard Copeland
(407) 384-5251 DSN 970-5251
email: Richard.Copeland@us.army.mil

IMO
Mr. J. Russell Longenbach
Instrumentation Mgmt Office
ATTN: SFAE-STRI-PMITTS-I
12350 Research Parkway
Orlando, FL 32826-3276
(407) 384-5230 / DSN 970-5230
e-mail: J.Russ.Longenbach@us.army.mil

TMO
Mr. Alvin Brown
Targets Mgmt Office
ATTN: SFAE-STRI-PMITTS-Q
Redstone Arsenal, AL 35898-7458
(256) 876-4077/7764
DSN 746-4077/7764
e-mail: Alvin.Brown@us.army.mil

TSMO
Mr. Timothy Bishop
Threat Systems Mgmt Office
ATTN: SFAE-STRI-PMITTS-S
Redstone Arsenal, AL 35898-4761
(256) 876-9656 x200
DSN 746-9656 x200
e-mail: Tim.Bishop@us.army.mil

http://www.peostri.army.mil/PM-ITTS
Army Targets Program

3 Major Areas!

Aerial

Virtual

Ground
What We Do

Develop Products

Buy Products

Fly

Drive

Sustain
Aerial Targets

• Turnkey Operations

• Target systems flight services supporting Army and Tri-service testing, training and FMS requirements

• Low Cost

Simulate Aerial Threats World-Wide in Live and Virtual Domains
Subscale Aerial Targets

**The MQM-107**
- Mission Speed: 210 – 525 knots
- Altitude: 100 – 42,000 feet MSL
- External Payload: 100 lb/wing
- Internal Payload: 100 lb max

**The MQM-175A/B**
- Speed Range: 200 – 350 ktas (cruise)
- Endurance: approx. 30 minutes @ 15k ft (4572m)
- Maximum Altitude: 20,000+ feet (6096m) MSL
- Maneuverability: 3G for 360°
Family of Outlaw Targets

MQM-170A Outlaw
- Gross Weight: 120 lbs / 54 kg
- Altitude: 12,000 ft
- Speed: 115 mph
- Endurance: 60 min

MQM-170B Boomer Outlaw
- Gross Weight: 130 lbs / 59 kg
- Altitude: 14,000 ft
- Speed: 100 mph
- Endurance: 120 min

MQM-170 Outlaw ER
- Gross Weight: 175 lbs / 79 kg
- Altitude: 15,000 ft
- Speed: 110 mph
- Endurance: 8-10 hrs*

* Not yet verified
Towed Targets

**Towing Platforms**

- MQM-107
- F-16
- Learjet

**Various Towed Targets**

- POTA-Tow
- TRX-4A
- Aerial Gunnery Tow
- RRTT
- CMTT
- JCHAAT
- TIX-IR

Targets are towed on synthetic radar transparent towline (up to 2 miles long).

Classified Tows (RCS Sensitive)
Mobile Ground Targets

Centrally Manage and Execute:
- 250 active assets
- Mobile Ground Targets for development and operational testing
- Multiple usage options:
  - Rent
  - Lease
  - Buy
- Provide accreditation support

Range Targetry:
- Design
- Procurement
- Fielding
- Support
TMO has actual threat wheeled and tracked vehicles with operational components for use in destructive and non-destructive testing and training.

**Actuals**

<table>
<thead>
<tr>
<th>Size</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Full 3D</td>
<td>✓</td>
</tr>
<tr>
<td>2 1/2D</td>
<td></td>
</tr>
<tr>
<td>Subscale</td>
<td></td>
</tr>
</tbody>
</table>

**Signatures**

- Visual  ✓
- IR  ✓
- MMW  ✓
- Acoustic  ✓
- Other  ✓

**Mobility**

- Mobile  ✓
- Manual  ✓
- Motorized  ✓

**Turret operational**

- Manual  ✓
- Motorized  ✓

**Ground Targets**

- **ZSU 23/4**
- **T-72**
- **SA-8 TEL**
- **SA-6 Radar**
- **SA-6 TEL**
- **BTR-80**
The PTS provides low cost alternatives to threat targets in support of T&E.

**Variants**
- Full-Scale
- 3-D decoy/surrogate
- T-72M, BMP-2, BTR-80 variants
- Visual Signature
- IR Signature with Heater Kit option

**Simple and Robust Mobility Options**
- Mobile
- Durable
- Minimal Logistic Footprint
- Validated decoy/surrogate

**Universal Sub-Frame**

**IR Heater Kit**

**Minimal Logistic Footprint**

**Ground Targets**

**Precision Target Signatures (PTS)**
Army Ground & Aerial Target Control System (AGATCS)

Existing TTCS-U*

AGATCS

*TTCS-U – Target Tracking Control System - Upgrade
AGATCS Development

Leveraging existing technology to develop the control system for targets of the future
Aerial Weapon Scoring System

- Laser Scoring Subsystem
- Bullet Scoring Subsystem
- Round Identification Location Subsystem (RILS)
- Rocket Scoring Subsystem

Control Station Functions

BSS Antenna Pattern

4 October 2012 Unclassified
• **Virtual Targets Project**: Building simulation target models capable of being used in synthetic signature prediction analysis software programs

• **Target Generation Laboratory**: Transitioning CAD models into simulation compliant visual, infrared, and radar frequency simulation target models

• **Army Model Exchange**: Distributing simulation target models to simulation developers throughout the Army T&E community
Irregular Warfare
Vehicles & Mannequins
Thermal Insurgents Mannequin (TIM)

- Can be suspended and hung with cord or supported by a pole
- Sufficient IR fidelity to support detection and tracking with US missile systems
- Ballistically transparent and does not impact lethality modeling
- Operate off of 120 Volts AC
Range Target Systems

Deployable Ranges

- Designed to bring range capabilities to the soldiers.

Precision Scoring

- Technology that provides efficient marksmanship training.
### Optional Equipment/Services

- Mannequins (IR)
- Camouflage Netting (ULCANS)
- Mobile Camouflage System (MCS)
- IR Kits for any threat vehicle
- Operations & Maintenance
- Night Vision Goggles
- ATVs
- Guns (SAWs/M16A3s/9mm)
- Radios
- Threat Communications Capability
- Target Accreditation reports
Deployable Operations

Target systems can be deployed to virtually any range in the world. Operations are fully self-contained with no range support required.

We will come to you!
Summary

• Always looking for a better, faster, cheaper product for our customers

• Recognized leader of aerial and ground targets

• Ready to responsively and responsibly support T&E and special training requirements