



# WELCOME TO Marine Corps Systems Command Immersive Training Environment (ITE) Project TALX

Transparent Accessibility • Live Exchange

4 May2021  
2:30 pm ET

Slido Event Code (for Q&A): **PMTRASYS**

# Webinar Agenda

Project: MARCORSYSCOM

Program Management Training Systems (PM TRASYS)

Immersive Training Environment (ITE)

- Rules of Engagement
- Introductions
- Project Discussion
- Q&A Open Exchange via Slido.com
- Closing Remarks
- Closing Reminders

Interested in submitting a question?

Go to [www.slido.com](https://www.slido.com) and enter the following event code:

**PMTRASYS**



# Rules of Engagement

- Remember the intent
- Not intended to vet your specific solution
- Primarily a programmatic/technical conversation
- Any discrepancies? Documentation takes precedence
- Time permitting, all questions will be answered
- All questions will be answered and posted to the ITE opportunity on the TReX website.
- Slides and recording will be posted

Interested in submitting a question?

Go to [www.slido.com](https://www.slido.com) and enter the following event code:

**PMTRASYS**



# Speaking Today

- Ms. Robyn Ingerham | Project Team Lead, Combat Immersive Egress Training Environments (CIETE)
- Mr. Tim Phillis | Lead Systems Engineer, CIETE

Interested in submitting a question?

Go to [www.slido.com](https://www.slido.com) and enter the following event code:

**PMTRASYS**





# MARINE CORPS SYSTEMS COMMAND

Equipping our MARINES



# TRAINING SYSTEMS

(PMM 130)



**MARCORSYS COM**

Program Manager Training  
Systems (PM TRASYS)







**MARINE CORPS SYSTEMS COMMAND**  
**Equipping our MARINES**



**MARCORSYS.COM**  
**MISSION**



# **Marine Corps Systems Command Mission**

To serve as the Department of the Navy's systems command for Marine Corps ground weapon and information technology system programs in order to equip and sustain Marine forces with full-spectrum, current and future expeditionary and crisis response capabilities.



# MARINE CORPS SYSTEMS COMMAND

Equipping our MARINES



# TRAINING SYSTEMS MISSION



**Vision:** To provide effective and affordable systems in support of the training enterprise at the correct place and time to support readiness of Marines to accomplish any assigned mission.

**Mission:** PM TRASYS Improves the Warfighting effectiveness of the MAGTF and globally deployed expeditionary forces by designing, developing, producing, fielding and sustaining training systems and devices and providing training support.



**MARINE CORPS SYSTEMS COMMAND**  
*Equipping our MARINES*



**TRAINING SYSTEMS**  
**(PMM 130)**

# Computer Generated Forces (CGF) Project TALX

**04 May 2021**





## Background

- Since 2007, the United States Marine Corps (USMC) has been utilizing Infantry Immersion Trainers (IITs).
- These systems provide adequate training for their intended purpose, there are training scenarios within the IITs that require the employment of role players.
- The USMC believes there are instances where these role players can be substituted using computer generated entities while still providing valuable and essential training.
- The IIT currently provides high-fidelity fixed immersive training environments with enhanced battlefield realism including exposure to operational complexities, mental and physical stresses, and challenging ethical decision-making.



## Problem Statement

- Our systems must provide the most realistic training environments in order to ensure that the first time our warfighters face the tactical and ethical dilemmas (shoot/no shoot, escalate force/de-escalate) of the modern operational environment are not on the battlefield. Our systems do not currently provide the comprehensive, multidimensional/multifaceted realism that our warfighters will face in today's operational environments.



## CGF Purpose

The CGF should meet Live, Virtual and Constructive objectives:

- Live – A simulation involving real people operating real systems. Military training events using real equipment are live simulations. Considered simulations because are not conducted against a live enemy.
- Virtual – A simulation involving real people operating simulated systems. Virtual simulations inject a Human-in-the-Loop into a central role by exercising motor control skills (for example: flying jet or tank simulator), decision-making skills (for example: Shoot no Shoot, committing fire control resources to action), or communication skills (for example, as members of a Marine Corps Special Operations Command team).



## CGF Purpose

- Constructive – A simulation involving simulated people operating simulated systems. Real people enhance such simulations but are not involved in determining the outcomes. A constructive simulation will be a computer program. For example, a military user may input data instructing a unit to move and to engage an enemy target. The constructive simulation determines the speed of movement, the effect of the engagement with the enemy and any battle damage that may occur. These terms are not to be confused with specific constructive models such as CGF, a generic term used to refer to computer representations of forces in simulations that attempt to model human behavior and human/systems interactions.





## CGF Operational Requirements

- System shall provide participants with realistic battlefield audio and visual cues for weapon effects, atmospherics and CGF
- System shall virtually demonstrate adaptable environment to support operations across Range Of Military Operations
- System shall allow Marine Corps Ranges to fully support pre-deployment training cycles in anticipation of operational deployments
- System shall provide high-end training venues that replicate modern battlefields for realistic controlled training exposure
- System shall provide simulation (for example: projection augmented reality or other) based reality models to impact human senses for combat immersion



## CGF Operational Requirements

- System shall allow the ability to adjust training levels in varying degrees of competence and complexity for the benefit of training units
- System shall administer the ability to track, model and simulate interactive environments for participants
- System shall be able to interface with existing After Action Review (AAR) capabilities
- System shall have the ability to create and control training scenarios for training application purposes
- System should provide a training environment with realistic battlefield terrain for multidisciplinary user interaction
- System shall be adaptable to support application of kinetic and non-kinetic responses in combat simulation



## CGF Operational Requirements

- System shall be flexible in rendering three dimensional (3D) computer generated images in accordance to program mission (for example: projecting on walls, augmented reality)
- (Objective) System should respond based on “free-play” with the use of artificial intelligence



## CGF Functional Requirements

- Shall be in compliance with MIL-STD 810G and in accordance with environmental standards using National Electrical Manufacturers Association (NEMA) box
- System shall connect to the main server to allow user to access machines from work stations
- System shall display 3D CGF images on walls of artificial mock village for immersive training
- System shall provide functionality to fire Special Effects Small Arms Making System (SESAMS) rounds at images for trainees to test decision-making skills
- System shall account for laser tracker for capturing laser shots by user to determine if “Friendly/Foe” was hit or missed



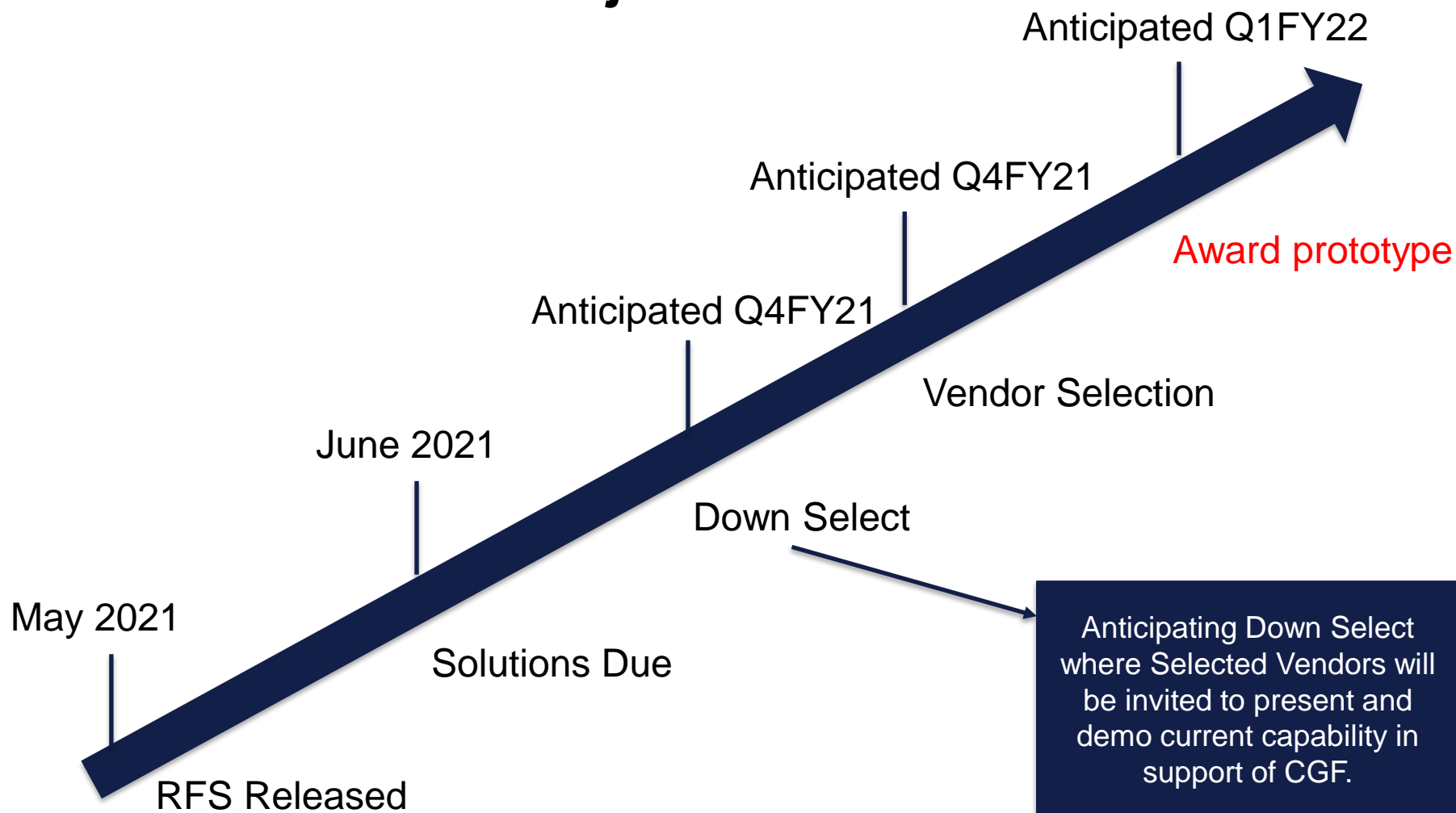


## CGF Functional Requirements

- System shall allow the image generating machines to be controlled from an array of instructor stations from AAR and/or control node
- System shall have the ability to play sounds produced by software to create the most realistic training environment
- System shall integrate Instrumented-Tactical Engagement Simulation System (I-TESS) configuration devices for re-configuration of Small Arms Transmitters (SATs) with reduced Multiple Integrated Laser Engagement System (MILES) codes
- System shall be in compliance with existing I-TESS Marine Corps configuration devices (M4, M16, and M249 Squad Automatic Weapon (SAW), etc.)
- (Objective) System should utilize holographic images vice projected images



## Project Timeline





**MARINE CORPS SYSTEMS COMMAND**  
*Equipping our MARINES*



**TRAINING SYSTEMS**  
**(PMM 130)**

# Questions

# Closing Reminders

- All Q&A's will be publicly available - visit [trainingaccelerator.org](http://trainingaccelerator.org)
  - NOTE: Q&A Responses that are posted take precedence over any verbal response provided today.
- Follow the instructions within the RFS
- Ensure your membership is active
- Industry Engagement:
  - Innovator NetworX May 6 @ 1400 ET
  - NSTXL Community





# TReX Team

Director

Tara Kilcullen

[tara@nstxl.org](mailto:tara@nstxl.org)

Acquisition Manager

Cathy Jordan

[cathy@nstxl.org](mailto:cathy@nstxl.org)

Specialist, Acquisition

Ashley Carter

[ashley@nstxl.org](mailto:ashley@nstxl.org)



**Thank you for joining Project TALX!**

