



**SIMULATION OPERATIONS AND
BATTLE COMMAND INTEGRATION**

We're About **WARFIGHTING**



Why is M&S Critical to the Army Mission?



ARMY READINESS



What is Simulation Operations?

*“Technology does not win wars; soldiers and leaders do...
Training translates technology’s potential into actual combat power.”*

—LTG James M. Dubik, USA

Simulation Operations and Battle Command Integration is about warfighting. It is the integration of modeling and simulation into events and exercises that allows commanders at all levels to meet training objectives and prepare their units for combat.

Simulation Operations applies today’s operations and defines future systems and training through modeling and simulation.





Mission

Provide the workforce that integrates Battle Command and performs Simulation Operations activities to the Army. Simulation Operations applies models and simulations to create the environments that prepare soldiers, leaders, and units for current and future battles. By infusing models and simulations into training and military operations, simulation operations will assist the Army in transformation.



**It's Not Just About
the Technology...
It's About People.**



CREATING THE
ENVIRONMENT



Execution

Using models and simulations, we can meet the challenges of an uncertain world. We can prepare for tomorrow's battle today. In order to do that, we are:

- Providing battle command and simulation operations support to soldiers, leaders, and units
- Creating future generations of simulations
- Enabling Army transformation through the use of models and simulations



ENABLING ARMY TRANSFORMATION



The Challenge & Call

Today's Army is transforming and is at War.

Battle Command Systems, digitization, new weapon systems, and emerging threats have increased our reliance on simulations for force readiness.



TRAINING & MILITARY OPERATIONS



Military Component—FA 57

- **Warfighters** – Soldiers who are seasoned with operational experience and understand military operations and training
- **Trainers** – Experts who develop, plan, coordinate, and execute exercises at all levels of command: Battalion, Brigade, Division, Army, Joint, Interagency, and Multi-National

WARFIGHTERS
TRAINERS
INTEGRATORS



- **Battle Command Integrators** – Operators who understand the capabilities of simulations as well as the Battle Command Systems and provide the training and operational environment for commanders to conduct operations, mission planning, and mission rehearsal exercises



Where We've Been. Where We Are. Where We Are Going.

Before FA 57:

- Ad hoc workforce
- No force structure
- No formal education process

What It Means Today:

- Designated functional area
- Established force structure
- Formal education and training process

What It Means Tomorrow:

- Trained and ready force
- Competent core group of professionals





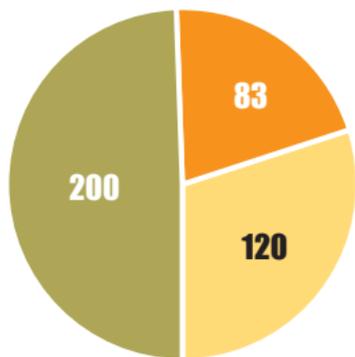
Simulation Operations Officers Throughout the Army



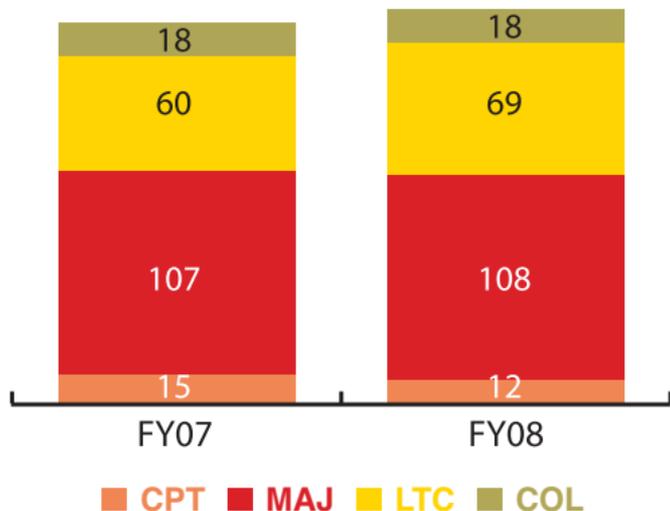


FA 57 Total Force Structure

FY 07 TOTAL



ACTIVE





Operation Iraqi Freedom—Convoy Trainer

An adaptive enemy requires adaptive training solutions

Problem Statement:

Soldiers are unaccustomed to current operational environment, resulting in casualties during operations



Mission: Develop training capability for soldiers preparing for deployment to Iraq

Solution: Develop a training capability that allows soldiers, leaders, and units to adapt to the new operational environment and prepare them for live fire training scenarios

**ENABLING
RELEVANT
& READY**



Operation Iraqi Freedom - Convoy Trainer

*"In Iraq I saw the difference in the units that had used this tool...
it made a significant difference."*

—Major John Powers AC/RC Advisor



- Simulation Operations Officers (FA 57) and civilian M&S experts developed and built a cost effective training capability to prepare soldiers for the live environment
- Capability exported to other simulation centers

& READY
ENABLING RELEVANT



The Joint National Training Capability

The Joint National Training Capability (JNTC) is a collection of interoperable training sites, nodes, and events that synthesizes Combatant Commander and Service training requirements and enables trainers to provide the appropriate “joint context.”



JOINT MINDSET



FA 57s and the Joint National Training Capability

- Defining the architecture for the JNTC
- Executing the JNTC training at the CTCs
- Creating the Simulations at the Joint Warfighting Center and National Simulation Center
- Who is your Joint Exercise Planner?
— an FA 57





Innovative Simulations Training For War-7th Army Training Command



Problem Statement: Create a training environment that represents the current realities in Iraq and Afghanistan. Distribute the exercise so that units from multiple sites can participate

Mission: Conduct training with coalition and United States forces prior to deployment to Iraq

Solution: An event that stimulated unit and coalition Battle Command Systems and met unit-training objectives

EXPEDITIONARY



Innovative Simulations Training For War– 7th Army Training Command

Who developed the training environment?

Simulation Operations Officers and M&S Civilian Professionals assigned to 1st Infantry Division and 7th ATC



Result

- An integrated training environment that mirrored real world events in Iraq for soldiers, leaders, and units
- A trained and ready force

EXPEDITIONARY



Battle Command

The Battle Command system is the arrangement of personnel, information management, procedures, equipment, and facilities essential to the commander to conduct operations (FM 6-0).

FA 57s are the experts at:

- Integrating Battle Command Systems and Simulations
- Making a seamless environment a reality
- Translating information into knowledge



EXECUTION CENTRIC



Command Post of the Future (CPoF)

Developed by DARPA –

FA 57s were instrumental in fielding the CPoF to the 1st Cavalry Division in Iraq

A force multiplier –

- Improve situational awareness/ understanding
- More effective dissemination of commands



EXECUTION
CENTRIC



OPERATORS

Reach Back – Providing Support to the Warfighter

Mission Rehearsal, After Action Review

- Simulations are supporting current operations in Iraq

FA 57s are:

- Creating capabilities for commanders to conduct AARs
- Conducting simulation exercises for mission rehearsal
- Conducting training



Vision of FA 57 as the Battle Command Officer

Provide the Commander (BCT – EAC) a trained expert who understands both the warfighting art and the science and technology of Battle Command to support effective decision making across the battlefield.

FA 57

- 81% Combat Arms
- 35% O/Cs
- ILE/AOWC
- Trained in ABCS
- Integrators of simulation into training, mission planning & rehearsal
- Translators of operational requirements into technical solutions

Battle Command Officer (BCO)

- Deep understanding of ABCS and enabling systems
- Leverages modeling and simulation support tools
- Translates information to knowledge
- Oversees technical architecture
- Manages “intel-ops-log fusion”

- SEE FIRST
- UNDERSTAND FIRST
- ACT FIRST
- FINISH DECISIVELY

FA 57s are operators with technical expertise



Civilian Component – Modeling and Simulation Civilian Career Program 36

- **Professionals** – who develop, acquire, field, and sustain models and simulations
- **Experts** – who apply live, virtual, and constructive simulation in a training, analysis, and research environment
- **Multi-disciplinarians** – who apply tools, services, and data across the communities that use modeling and simulation in the Army. These civilians are in acquisition, analysis, operations, testing, training, and experimentation assignments, the Army's Civilian Battle Command, Modeling, and Simulation Pentathletes



Army Civilian Training, Education and Development System (ACTEDS) for the Career Program can be found at: http://cpol.army.mil/library/train/acteds/CP_36/



Simulation and Modeling Center and School

Training available from the Proponent:

- Simulation Operations Qualification Course
- Simulation Operations Professional Course
- Skill Identifier “S7” Course
- Basic Modeling and Simulation Course via Distance Learning
- Modeling and Simulation for PM and PEO
- Combat Developers use of Modeling and Simulation lesson
- NATO Lecture Program
- Right Seat Ride at the National Training Center
 - Emphasis on integrating Modeling and Simulation in training

As battle command systems, models, and simulation become progressively more complex and mission essential, there is a growing need to provide education, training, and professional development to military and civilian components of the Army M&S workforce.

EDUCATING
& TRAINING



Simulation Operations Qualification Course

- **Purpose** – Provide modeling, simulation and battle command initial skill set training to the Modeling and Simulation community and to qualify FA 57 officers
- **Required of** – Military officers who have the career field designation FA 57 and civilian professionals
- **Duration** – 6 Weeks



The curriculum emphasizes the following topics: battle command integration techniques; fundamental knowledge of modeling and simulation; creating models and simulations; applying models and simulations to a military environment; integrating models and simulations with unit training programs; evaluating and modifying models and simulations; and future simulation issues.



Skill Identifier S7 Course



- **Purpose** – Train brigade and battalion level S3s/Assistant S3s to plan and integrate simulation into unit training activities
- **Required of** – Officers going to Skill Identifier S7 designated positions
- **Duration** – 2 weeks

Course curriculum emphasizes the following topics:

- Brigade and below simulations
- Applying simulations to unit training
- Interoperability of simulations with Battle Command Systems

TRAINING



Simulation Operations Professional Courses

- **Purpose** – Provide Simulation Operations Professionals (military and civilian) with an understanding of M&S and its applications
- **Duration** – Length tailored to requirement



Courses currently offered:

- Fundamentals of M&S program management
- Technical aspects of simulations
- Employing simulations

DEVELOPING



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