United States Joint Forces Command
Bridging Capability Gaps in Joint Training

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J7/Joint Warfighting Center
U.S. Joint Forces Command
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Today Informs Tomorrow …

J5 / JIWC Integrating Functions

J8 – FORCE INTEGRATOR
MAKING SYSTEMS COMPATIBLE

J7 / SOC – FORCE TRAINER
TRAINING JOINT FORCES

J3 – FORCE PROVIDER
JOINT FORCES & EQUIPMENT

J6

J9 – CONCEPT DEVELOPMENT & EXPERIMENTATION
FINDING SOLUTIONS FOR THE FUTURE

J2
Integrating ISR

JCOA Lessons Learned

JECC - FORCE AUGMENTATION
DEPLOYING UNIQUELY SKILLED TEAMS

NATO / ACT Engagement

…Tomorrow Informs Today
Joint Training Directorate/
Joint Warfighting Center Mission

The Joint Training Directorate/Joint Warfighting Center trains forces, develops doctrine, leads training requirements analysis and provides a globally distributed and interoperable training environment.

We do this to improve joint force readiness.
Joint Training Directorate

Joint Training Delivery
• Conduct tailored Mission Rehearsal Exercises (MRX) in Iraq, Afghanistan, and the Horn of Africa
• Over 20 MRXs since start
• Coordinates or supports about 24 joint task force headquarters training events annually

Doctrine and Education Support
• Responsible for joint doctrine development
• Lead agent for 12 of 80 publications
• Supports Allied Joint Publications, handbook, newsletter and whitepaper development

Development of the Joint Training Environment
• Supports joint context by partnering with Service training programs
• Enabled by a live, virtual, constructive (LVC) federation and a global Joint Training and Experimentation Network (JTEN)

Globally Distributed Training for the Individual
• Web-based learning portal for joint and Service users
  • 557 courses available
  • Hosts 90 communities of interest
• Custom-tailored web-based gaming simulation for joint warfighters
Unified Command Plan

As the Joint Force Trainer, Commander USJFCOM leads joint force training and is responsible to the Chairman for:

• **Assisting, Conducting and Assessing Joint and Multinational Exercises**
  – (a) Assisting the Chairman, combatant commanders, and Service Chiefs in their preparations for joint and multinational operations.
  – (c) Conducting and assessing joint and multinational training for assigned forces.

• **Providing Joint Training Enablers and Integration**
  – (b) Supporting the Services' and combatant commanders' participation in the Combatant Commander Exercise Engagement and Training Transformation program.
  – (d) Leading the development and operation of joint training systems and architectures that directly support the combatant commanders, Services, and defense agencies.

• **Developing Joint Doctrine, Leadership Education and Training**
  – (e) Supporting the Chairman’s joint doctrine program, including providing recommendations to the Chairman for the development, assessment, and maintenance of joint doctrine publications.

*(From 2008 UCP)*
FY10/11 Joint Event Support

NORTHCOM
Vigilant Shield 10
Ardent Sentry 10
Vigilant Shield 11
Ardent Sentry 11

EUCOM
Austere Challenge 10
Austere Challenge 11

USFK
Ulchi Freedom Guardian 10
Key Resolve 10
Ulchi Freedom Guardian 11
Key Resolve 11

USJFCOM
CAPSTONE 10/11-1/2/3/4
Pinnacle 10/11-1/2
KEYSTONE 10/11-1/2
UE 09-3 OIF MRX
UE 10-1 OEF 10-11 MRX
UE 11-2 OEF 11-12 MRX
JTF 435 OEF MRX
CJTF-HOA 10-1 MRX
CJTF-HOA 11-1 MRX
UE 10-3 OEF MRX (RC-S)
UE 11-1 OIF MRX

AFRICOM
Africom Staffex 10
Judicious Response 10
Judicious Response 11

CENTCOM
Bright Star 10
Internal Look 10
Internal Look 11
Internal Advance 11

SOUTHCOM
FA Panamax 10
Integrated Advance 10
FA Panamax 11
Integrated Advance 11

TRANSCOM
Turbo Distribution 10
JLOTS 10
Turbo Challenge 11
Ultimate Caduceus 11

STRATCOM
Global Lightning 10
Global Thunder 10
Global Lightning 11
Global Thunder 11

PACOM
Terminal Fury 10
Cobra Gold 10
Talisman Saber 11
Terminal Fury 11

AFRICOM
Africom Staffex 10
Judicious Response 10
Judicious Response 11

USJFCOM
CAPSTONE 10/11-1/2/3/4
Pinnacle 10/11-1/2
KEYSTONE 10/11-1/2
UE 09-3 OIF MRX
UE 10-1 OEF 10-11 MRX
UE 11-2 OEF 11-12 MRX
JTF 435 OEF MRX
CJTF-HOA 10-1 MRX
CJTF-HOA 11-1 MRX
UE 10-3 OEF MRX (RC-S)
UE 11-1 OIF MRX

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Judicious Response 10
Judicious Response 11

CENTCOM
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Internal Look 11
Internal Advance 11

SOUTHCOM
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Cobra Gold 10
Talisman Saber 11
Terminal Fury 11

Total: 58
7 MRXs
35 COCOM Events
16 Senior leader Seminars
Emerald Warrior Exercise

Objective: Supporting Combatant Commanders in an irregular warfare setting

Audience

500 Special Operations Forces

500 Joint Forces

20 members of Interagency

20 Nongovernmental Organizations
Emerald Warrior Exercise

JNTC Enablers

- Enemy/situational forces
- A “leave behind” infrastructure
- Joint Training Experimentation Network linkage to Joint Live Virtual Constructive

Distribution

Live, Virtual, Constructive

- Eglin Air Force Base, Fla.
- Hurlburt Field, Fla.

Live, Virtual

- Charleston Air Force Base, S.C.

Live

- Pelham Range, Anniston, Ala.
- Shelby Range, Miss.
- Tyndall Air Force Base, Fla.
- Apalachicola, Fla.

Virtual

- Camp Lejeune, N.C.

“That integrated environment is something our troops face in combat, and what we wanted to do is create the same things they face in Iraq or Afghanistan.”

- Air Force Col. Ron Wiegand, Emerald Warrior exercise director, to Air Force Magazine
Joint National Training Capability (JNTC) Business Model

**Inputs**
- Defense Plans
- Combatant Command & Service Program Accreditation
- Training Development Requirements

**USJFCOM- led management**

**JNTC Requirements Process**

**Collaborative Planning**

**Active**

**Incentives based on validated needs**

**Services/SOCOM**
- Instrumentation
- OPFOR technical support
- Training support
- Event joint context
- Program mitigation

**USJFCOM**
- JMO
- Training Program support
- A/C Mitigation
- Exercise Control and C2 emulation
- OPFOR management
- Communications/Infrastructure
- Integration and test
- Modeling and Simulation integration

**President’s Budget**

- Simulator enhancements
- Training capability enhancements
- Service simulation upgrades to joint standards
- Joint event planning and execution
- System maintenance
Enabling Joint Training

- Individual Training
- Small Unit Training
- Home Station Training
- Service Tactical Training
- Operational Training
- Strategic Training

- Joint Individual Training
- Joint Enablers and ISR to Crew and Small Team
- Joint Enablers to Service Title 10 Training
- Joint Task Force Mission Rehearsal
- Combatant Command Exercises
- Joint Enabled Multinational & Interagency Training

- Joint Online Training
- Joint Enabled Immersive Training
- Joint Context to Service Training
- Distributed LVC Capability
- Cutting Edge Deployment Training for Overseas Contingency Operations

Joint Distributed Live-Virtual-Constructive Environment

- Models & Simulations
- Joint Training Enterprise Network
- OPFOR
- Command & Control Systems
- Instrumentation
- Virtual Simulations

Joint Integrating Architecture & Infrastructure

- Joint Data, Standards and Specifications
Training Transformation

1. Realistic Combat Training
   - Ensure C4ISR Resources are Available
2. Adaptive and Credible Opposing Force
   - Establish the Infrastructure for an LVC Environment
3. Common Ground Truth
   - Establish a Robust Research, Development, and Demonstration Program
4. High Quality Feedback
   - Create a Highly Adaptable Mission Rehearsal and Joint Training Capability

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Providing an Interoperable Training Environment

LIVE
• Real People
• Real Systems

VIRTUAL
• Real People
• Simulated Systems

CONSTRUCTIVE
• Simulated People
• Simulated Environment
• Simulated Equipment
Joint Live Virtual Constructive (JLVC) Federation

- Modular set of joint and service simulations and software tools integrated to represent joint forces in support of training
- Capable of representing 250,000+ individual platforms (people, vehicles, aircraft, and ships) with realistic behaviors and signatures on a global scale
- Integrates give instrumented forces and virtual simulations
- Supports multi-echelon training audiences in one exercise, strategic to tactical level

JLVC Federation: A Modular Capability

JLVC is the only Joint All-Service Integrating Architecture!
Current Joint Training and Experimentation Network Sites

Key
- Regional communications hub
- Existing persistent site
- Funded/not installed site
- Dual JTEN 1.0/JTEN 2.0 site
- Non-JTEN US secure network
- Non-US secure network

48 - Persistent sites + other networks
5 - JTEN 1.0 sites awaiting install
1 - JTEN 1.0 site awaiting relocation
5 - FY11 JTEN 2.0 sites awaiting install

As of 1 July 2010
Expanding Meaningful Joint Training for Soldiers, Sailors, Airmen & Marines

Combatant Command & Service Training Events with Joint Context

Fiscal Year

2005 2006 2007 2008 2009

Number of Events

200 180 160 140 120 100 80 60 40 20 0

COCOM USMC Air Force Navy Army

222 181 37 12 121 99 31 14 10 35 29 21 14 11 27 6 5 7 9 25 47 53
Joint Knowledge Online:
Globally accessible, operationally relevant individual training

- 557 courses
- 2170+ hours of instruction
- Internet, DoD unclassified and U.S. secret networks provide training products to multinational, interagency and intergovernmental

Training includes:
- Irregular Warfare
- Cultural Awareness
- Mission Rehearsal Exercises
- Stability Operations
- Information Operations
- Multinational Operations
Information Operations Range

IO Range:
1. Increases COCOM awareness and confidence in IO capabilities
2. Increases integration of non-kinetic effects with kinetic warfare
3. Supports emerging IO technologies
4. Facilitates training against IO targets sets
5. Integrates IO capabilities into Joint training, testing, and experimentation

Legend

Service Delivery Points
installed
in progress
planned
recurrent

Current as of: 6 Apr 10
Virtual Integrated Support for the Information Operations Environment (VISION)

Assists organizations engage across a full range of analysis, planning and assessment processes by providing:

• Intuitive Workflows
• Multiple source, decision-quality data
• Cooperative course-of-action development
Future Immersive Training Environment (FITE)

- An integrated, interoperable immersive environment
- Elevates the quality of training by focusing on complex decision making in chaotic environments
- Creates a host of integrated groups: trainers, academia, social and human scientists, mission planning and mission rehearsal developers, first responders, industry and the Live, Virtual Constructive/online/gaming communities
Close Combat Infantry Immersive Training (CCIIT) Architecture

Military Operational Problem

“The Department of Defense lacks advanced simulation for squad level infantry close combat operations. There are insufficient immersive simulation, artificial intelligence and immersive training technologies to fully enable enhanced tactical and ethical decision making, increased military effectiveness, reduce friendly and non-combatant casualties, increase lethality, contribute to combat team proficiency, increase survival and success rates, and improve small unit performance in current and future complex threat environments.”

Capabilities

- Highly Fidelity Training Scenarios
- Integrated External Enablers
- Naturalistic Interaction with Geo-typical Environments and Entities
- True to Life Equipment and Weapons Function
- Entity Autonomous Action Behavior Scripting
- Virtual Immersive Reconnaissance
- Instantaneous, Realistic Sensory feedback
- Human Performance and Decision Making
IW Training Community of Interest (TCOI)

• Who: Services, Combatant Commands, Joint Task Forces, Combat Developers, etc…
• What:
  – Joint Training Directorate/JWFC-led group of IW training developers and stakeholders
  – Address IW training requirements and gaps
  – Share “best of breed” IW training solutions
  – Building upon the IW lessons, innovations, joint competencies, and adaptive leadership from contemporary warfare – accelerating learning
  – An operating arm to resolve Afghanistan TCOI IW-related issues
• Reports input and recommendations through JNTC and Office of the Secretary of Defense processes
• Point of Contact: COL Tom Isom, thomas.isom@jfcom.mil
Back-up
Unified Endeavor (UE) Operation Enduring Freedom Mission Rehearsal Exercise (MRX) Program

**UE 10-3**
July 13-30, 2010

- Execution: Fort Drum, NY
- Training audience:
  - RC-S/CJTF-7 (10th Mountain Division)
- CJTF 7 replacing CJTF 6 in Nov 2010
- Training audience: more than 1,000 deploying troops
- Heavy UK participation
  - CJTF 6 SMEs

**UE 11-2**
Jan. 18-Feb. 4, 2011

- Execution: Simultaneous distributed participation
- Training audience:
  - RC-SW (II MEF-FWD); Camp Lejeune, N.C.
  - RC-E (US Army Div HQ); Fort Hood, Texas
  - RC-N (German Div HQ); TBD
- II MEF-FWD replaces I MEF-FWD, Spring 11
  - II MEF-FWD HQ to be replaced by UK-sourced/led headquarters
- Heavy UK participation
  - RC-SW Headquarters
  - Task Force Helmand
  - Helmand PRT
Unified Endeavor (UE) Operation Enduring Freedom 10-3 Mission Rehearsal Exercise

- UE 10-3 Operation Enduring Freedom Mission Rehearsal Exercise (MRX)
- Execution: July 13-30, 2010
- Prepared more than 1,000 deploying troops assigned to Combined Joint Task Force 7 Operation Enduring Freedom rotation 09-11, serving in ISAF Regional Command – South (December 2010)
  - CJTF 7 is a U.S.-led headquarters that will replace the U.K.-led headquarters CJTF 6 in 2010
  - Used modeling and simulation to train for a variety of situations
  - UK participated
**UE Operation Enduring Freedom 11-2 MRX**

- **Training audience:** II Marine Expeditionary Force (MEF) – FWD/U.S. Army Division Headquarters
- **Execution:** January 18 - Feb. 4, 2011
- **RC-East and RC-SW combined event**
- **Follow-on MRX for RC-S/Southwest**
- **RC-SW is a U.S.-led headquarters**
  - Currently led by I MEF FWD
  - Will be replaced by II MEF FWD in Spring 2011
- **The II MEF FWD-led headquarters will be subsequently replaced by Great Britain-sourced/led headquarters**
- **UE 11-2 will use modeling and simulation**
- **II MEF FWD Headquarters anticipates robust UK participation**
  - Headquarters augments
  - Task Force Helmand
Collective Training: Combatant Commands and Partner Nations

AREAS OF OPERATIONAL DEMAND:
- Irregular Warfare
- Whole of Government
- Public diplomacy
- Information Operations
- Strategic Communication
- Homeland Defense

Mission Rehearsal Exercises
Tailored Support to Exercises and Events
Combatant Command Exercises
Multi-National Exercises
Unique Operational Requirements