

United States Joint Forces Command Bridging Capability Gaps in Joint Training

Mr. Greg Knapp Executive Director J7/Joint Warfighting Center U.S. Joint Forces Command 10 August 2010

Today Informs Tomorrow ...

J5 / JIWC Integrating Functions

J6

J8 – FORCE INTEGRATOR

MAKING SYSTEMS
COMPATIBLE

J7 / SOC – FORCE TRAINER

TRAINING JOINT FORCES

J3 – FORCE PROVIDER

JOINT FORCES & EQUIPMENT

JCOA Lessons Learned

Integrating

J9 – CONCEPT DEVELOPMENT & EXPERIMENTATION

FINDING SOLUTIONS FOR THE FUTURE

> J2 Integrating ISR

JCOA Lessons Learned



JECC - FORCE AUGMENTATION

DEPLOYING UNIQUELY SKILLED TEAMS

J6

NATO / ACT Engagement

J5 / JIWC Integrating Functions

...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



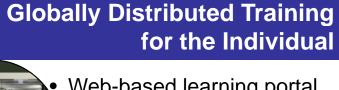


- Responsible for joint doctrine development
- Lead agent for 12 of 80 publications
- Supports Allied Joint Publications, handbook, newsletter and whitepaper development

Enabling and Integrating the Joint Warfighter



- 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)



- 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

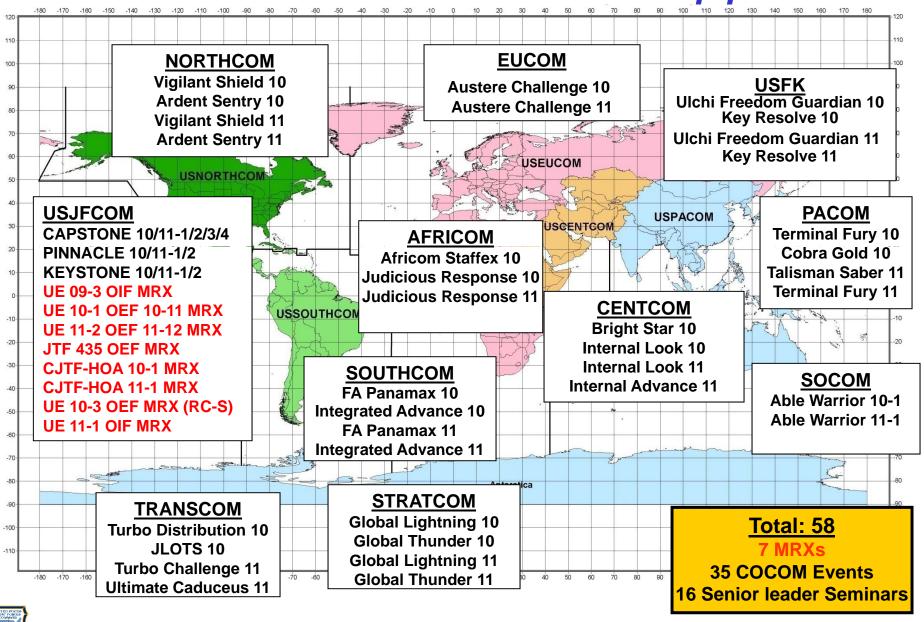
- (b) Supporting the Services' and combatant commanders' participation in the Combatant Commander Exercise Engagement and Training Transformation program.
- (d) Leading the development and operation of joint training systems and architectures that directly support the combatant commanders, Services, 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.

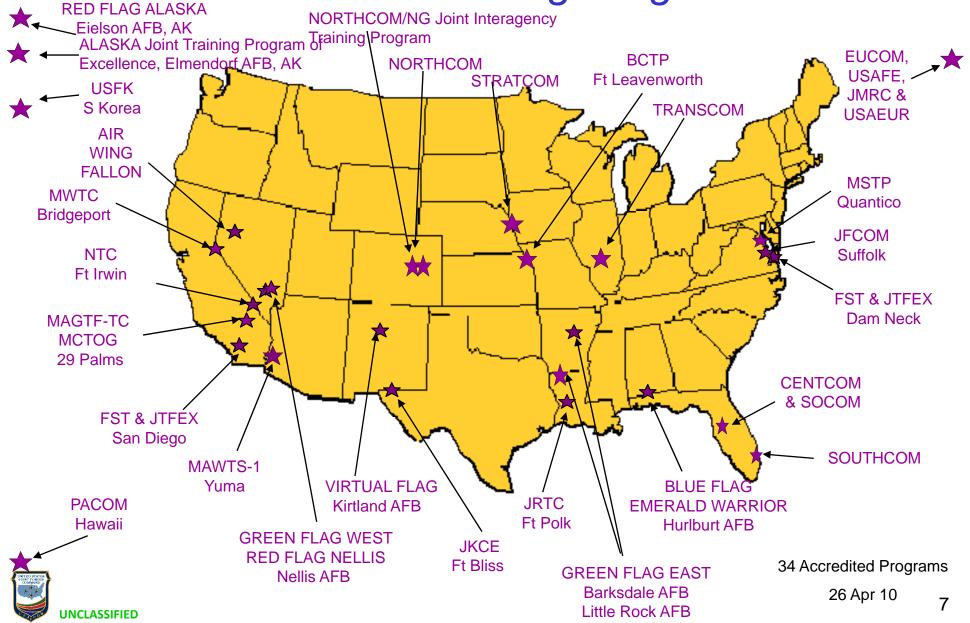


FY10/11 Joint Event Support





Joint National Training Capability (JNTC) Accredited Training Programs



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

"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

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.





Joint National Training Capability (JNTC) Business Model

President's

Budget

Inputs •Defense Plans •Combatant Command & Service Program Accreditation •Training Active USJFCOM- led management JNTC Requirements Process

Incentives based on validated needs

Collaborative Planning

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

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



Development Requirements





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



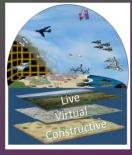
Joint Enabled Immersive Training

Joint Online
Training Small Group
Scenario Trainer



Joint Context to Service Training











Cutting Edge Deployment Training for Overseas Contingency Operations

Virtual Cultural Awareness Trainer



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



Joint Enabling & Integration

Training Transformation

Realistic Combat Training Adaptive and Credible Opposing Force

Common Ground Truth

High Quality Feedback

Ensure C4ISR Resources are Available

Establish the Infrastructure for an LVC Environment

Establish a Robust Research, Development, and Demonstration Program

Create a Highly Adaptable Mission Rehearsal and Joint Training Capability

Develop the Functional and Technical Requirements for an LVC Environment

	Joint Management Office	Joint Training System Applications	Support Elements	Opposition Forces	Global Joint Training Infrastructure	Advanced Training Technologies
	Budget	Requirements	Operations Support	OPFOR Technologies	Infrastructure	R & D
	Management	Event Support	Technical Support	Opposing Forces	Architecture	LVC Technologies
	Process Improvement	System Certification	Reporting	Doctrine & TTP	Standards	IM / KM
STATES FORCES MAND	Asset Life Cycle Mgmt	Program Accreditation	JFCOM Reach back	Service Asset Mgmt	Instrumentation	Joint ATT Laboratory

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Providing an Interoperable Training Environment

LIVE

- Real People
- Real Systems



VIRTUAL

- Real People
- Simulated Systems



CONSTRUCTIVE

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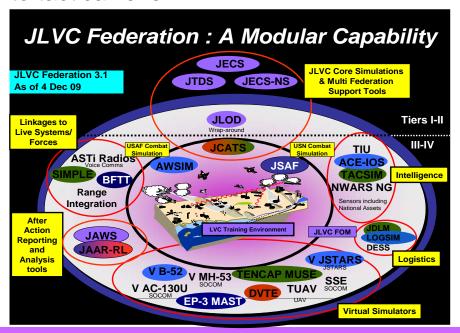
- Simulated People
- Simulated Environment
- Simulated Equipment



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









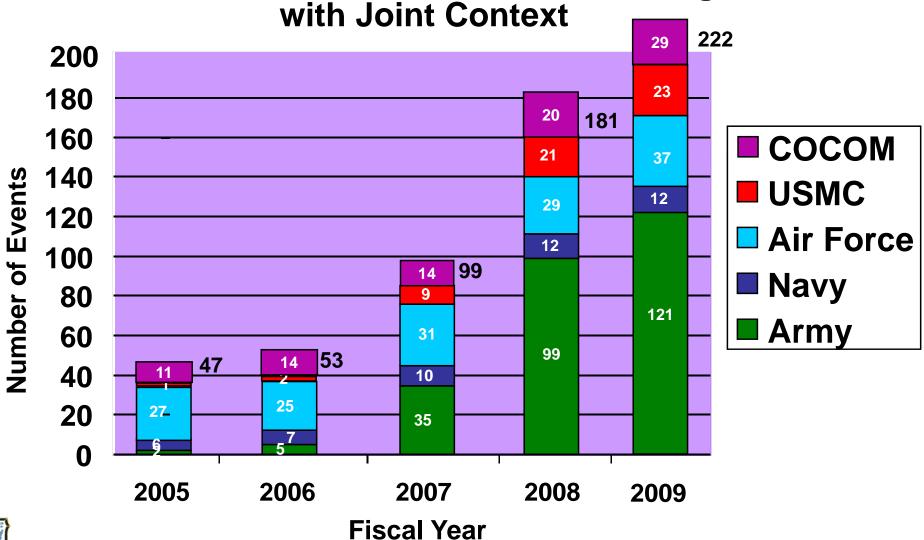


JLVC is the only Joint All-Service Integrating Architecture!

48 - Persistent sites + other networks 5 - JTEN 1.0 sites awaiting install Current Joint Training and 1 - JTEN 1.0 site awaiting relocation 5 - FY11 JTEN 2.0 sites awaiting install **Experimentation Network Sites** Eielson AFB Ft Lewis HSDN <header-cell> Yongsan JMETC FBINET ARCNET AFRES (DTOC) Offutt (STRATCOM). -Cp Courtney Aggregate Route Cp Atterbury Suffolk HUB Ft Riley Ft Leavenworth (NOSC, JWFC, JATTL<u>, J</u>FL) NAS Fallon Dam Neck (TTGL) Scott AFB (TRANSCOM)LangleyAFB Nellis AFB etersen AFB (NORTHCOM) Norfolk 2.0 Cp Roberts Ft Irwin (NTC) Ft Campbell Ft Bragg Cp Lejuene RAF Molesworth 29 Palms (MCAGCC) Schofield Shaw AFB **Barracks** Little Rock AFB WPC Cp Pendleton (EUCOM) Ford Island HI **Kirtland AFB** Ft Stewart ► Pt Loma (TTGP) PACOM HUB **HUB and DMOC** 👺 Yuma MCAS **USAREU** Barksdale AFB Davis-Monthan AFB Keesler AFB Fiber Hurlburt Field 2.0 Grafenwoehr GE Ft Bliss Ft Hood Hurlburt Field Ft Polk (EUCOM HUB NCTE Eglin AFB West JMCTC) DTEN Key Orlando (JDIF) Regional communications hub Ft Sam MacDill AFB (CENTCOM & SOCOM) Houston Existing persistent site (SAR Node) Funded/not installed site Miami (SOUTHCOM) Dual JTEN 1.0/JTEN 2.0 site Non-JTEN US secure network 15 Non-US secure network As of 1 July 2010 UNCLASSIFIED

Expanding Meaningful Joint Training for Soldiers, Sailors, Airmen & Marines

Combatant Command & Service Training Events





Joint Knowledge Online:

Globally accessible, operationally relevant individual training

557 courses

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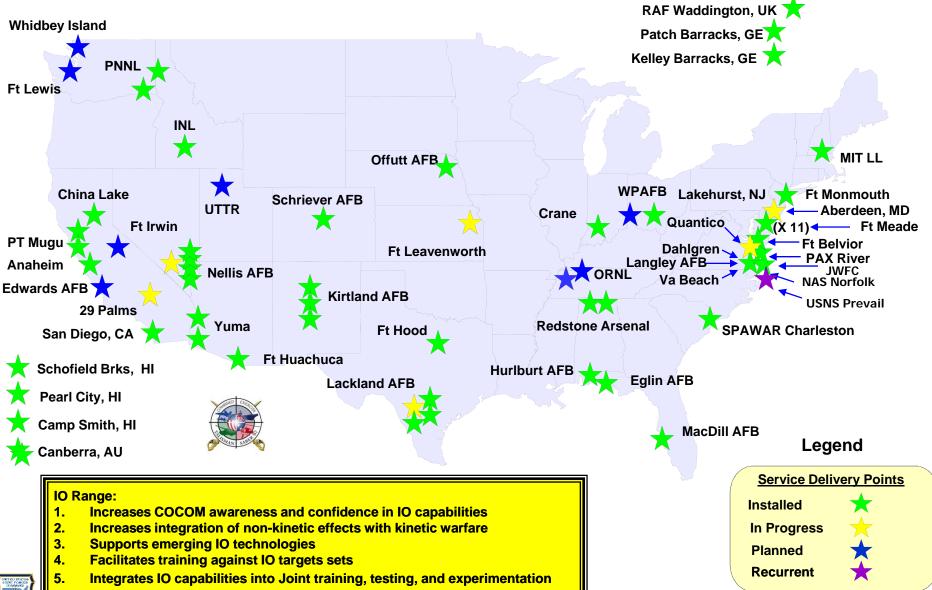
- 2170+ hours of instruction
- Internet, DoD unclassified and U.S. secret networks provide training products to multinational, interagency and intergovernmental

Training includes:

- Irregular Warfare
- Cultural Awareness
- Mission Rehearsal Exercises
 - Stability Operations
 - Information Operations
 - Multinational Operations



Information Operations Range





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)



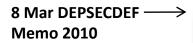
An integrated, interoperable immersive environment

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



CCIIT 30 March ___ Memo 2010

"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."



_ 11 March 2009 Anchor Points Memo

← SEC Guidance

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:

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- 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 IWrelated issues
- Reports input and recommendations through JNTC and Office of the Secretary of Defense processes
- Point of Contact: COL Tom Isom, <u>thomas.isom@jfcom.mil</u>





Back-up



Unified Endeavor (UE) Operation Enduring Freedom Mission Rehearsal Exercise (MRX) Program

<u>UE 10-3</u>

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

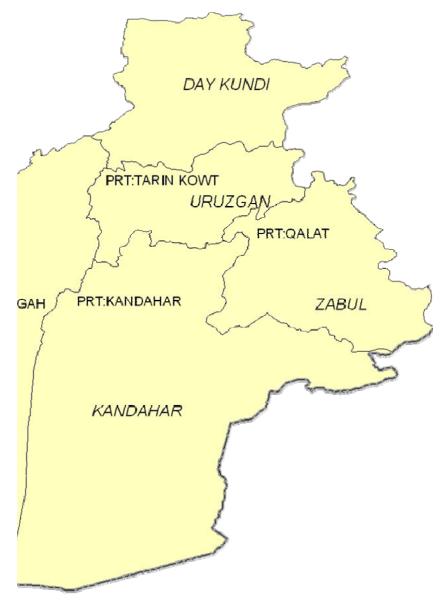
Jan. 18-Feb. 4, 2011

- 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 UKsourced/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

