



Joint Test  
& Evaluation  
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# Joint Test and Evaluation Program

The Joint Test and Evaluation (JT&E) Program develops solutions to joint operational problems through enhanced tactics, techniques, and procedures (TTP) and measures the associated improvements based on rigorous analysis and operational evaluation. The JT&E Program's objective is to provide rapid solutions to operational issues identified by the joint military community. The program is complimentary to, but not part of, the weapons acquisition process.

The program managed 10 joint tests in FY09 that focused on emerging needs of today's deployed forces:

- Joint Air Defense Operations-Homeland (JADO-H)
- Joint Airspace Command and Control (JACC) \*
- Joint Civil Information Management (J-CIM)
- Joint Command and Control for Net-Enabled Weapons (JC2NEW) \*
- Joint Data Integration (JDI)
- Joint Electronic Protection for Air Combat (JEPAC)
- Joint Mobile Network Operations (JMNO) \*
- Joint Non-Kinetic Effects Integration (JNKEI)

- Joint Test and Evaluation Methodology (JTEM) \*
- Joint Test and Evaluation Methodology-Transition (JTEM-T)

The JT&E Program instituted a quick reaction test (QRT) capability in 2003 to respond to pressing warfighter needs. The program managed 10 QRTs in FY09:

- Engage On Remote (EOR) \*
- Joint Base Expeditionary Targeting and Surveillance System-Combined (JBETSS-C) \*
- Joint Combat Outpost (JCOP) \*
- Joint Communications Redundancy (JCR) \*
- Joint Defense Support to Civil Authorities (JDSCA)
- Joint Entry Control Point/Escalation of Force Project (JEEP)
- Joint Early Warning Operator (JEWOW)
- Joint Sniper Defeat (JSD) \*
- Joint Systems Prioritization and Restoration (JSPAR)
- Joint Unmanned Aircraft System Full-Motion Video Integration for Command and Control (JUFIC)

(\* indicates projects that closed in FY09)

## JOINT TESTS

### JOINT AIR DEFENSE OPERATIONS-HOMELAND (JADO-H)

**Sponsor/Charter Date:** North American Aerospace Defense and U.S. Northern Command/August 2007

**Purpose:** To develop deployable homeland air and cruise missile defense (D-HACMD) joint TTP and planning processes.

**Products/Benefits:** Standardized planning to counter emerging air threats to the homeland. Collaborative tools will include the following:

- D-HACMD process modeling that provides a view of the entire planning process
- Checklists for critical steps in the planning process
- An exercise planning guide
- A commanders planning handbook

### JOINT AIRSPACE COMMAND AND CONTROL (JACC) (COMPLETED DECEMBER 2008)

**Sponsor/Charter Date:** Army/August 2006

**Purpose:** To provide faster, more lethal access to joint airspace for surface and airborne sensors, weapons, and command and control systems to carry out missions in support of forward operating bases and maneuver elements.

**Products/Benefits**

- *Joint Airspace Command and Control Techniques* handbook
- Checklists for airspace control for use in Air Land Sea Application Center publications

- Airspace Command and Control chapter in the Air Force's TTP 3-1, *Theater Air Control System*

### JOINT CIVIL INFORMATION MANAGEMENT (J-CIM)

**Sponsor/Charter Date:** U.S. Special Operations Command/August 2008

**Purpose:** To develop joint TTP to standardize, collect, consolidate, and share civil information among DoD, other U.S. government agencies, host nations, coalition forces, and non-governmental organizations to support the joint force commander's operational planning efforts.

**Products/Benefits:** A users guide that will:

- Standardize collection, consolidation, and sharing of civil information
- Identify senior leader and staff requirements for the integration of civil data to support planning, operations, and assessments in support of non-lethal operations
- Enable commanders, senior leaders, and other stabilization and development partners to better share, identify, prioritize, and apportion resources

### JOINT COMMAND AND CONTROL FOR NET-ENABLED WEAPONS (JC2NEW) (COMPLETED SEPTEMBER 2009)

**Sponsor/Charter Date:** Air Force/August 2006

**Purpose:** To improve the operational concepts and procedures for controlling net-enabled weapons by developing command and control processes required to exchange information between net-enabled weapons and the delivery platforms, sensor platforms, and command and control systems.

**Products/Benefits:** New capabilities that allow joint force commanders to prosecute time-sensitive targets with net-enabled weapons. Other benefits are the following:

- Minimized risks to operators, friendly ground forces, and noncombatants through precise engagement of moving and stationary surface targets
- Optimized use of net-enabled weapons through in-flight re-tasking capabilities
- Training methodologies that support the use of net-enabled weapons

## JOINT DATA INTEGRATION (JDI)

**Sponsor/Charter Date:** U.S. Joint Forces Command and Joint Task Force 519/August 2008

**Purpose:** To develop joint TTP for Global Command and Control System – Joint operators, track data managers, and systems administrators to provide the joint task force and combatant commanders with an effective theater common operational picture.

**Products/Benefits to the Warfighter:** *Quick Reference Guide for Developing and Sharing the Common Tactical Picture*. This guide provides new command and control data management procedures that improve the quality of the common tactical picture used by joint task force and component commanders to support force employment decisions.

## JOINT ELECTRONIC PROTECTION FOR AIR COMBAT (JEPAC)

**Sponsor/Charter Date:** Air Force/August 2007

**Purpose:** To develop joint TTP to improve air combat effectiveness in air-to-air electronic attacks using situational awareness tools and off-board sensor data.

**Products/Benefits to the Warfighter:**

- TTP that assisted tactical and operational planners in performing their missions
- Training package that is currently taught by Marine Aviation and Weapons Tactics Squadron 1 and the Naval Strike and Air Warfare Center.

## JOINT MOBILE NETWORK OPERATIONS (JMNO) (COMPLETED MARCH 2009)

**Sponsor/Charter Date:** Marine Corps/February 2006

**Purpose:** To develop joint TTP that improve the ability of joint tactical forces to digitally communicate directly with each other and provide tactical forces and mobile users access to information resources and network services when crossing Service network boundaries.

## Products/Benefits

- Improved mobile network access while maintaining quality of service
- Enhanced mobile users' connectivity to their home network resources while maneuvering
- Enabled interoperability while maintaining information assurance

## JOINT NON-KINETIC EFFECTS INTEGRATION (JNKEI)

**Sponsor/Charter Date:** U.S. Strategic Command/August 2007

**Purpose:** To develop joint TTP that assist planners in integrating the non-kinetic effects of electronic attack, computer network attack, and space control-negation capabilities into operational planning.

**Products/Benefits:** Improved integration of non-kinetic effects during operational planning that expand the range of possible courses of action for joint force commanders. These improvements will be captured in joint doctrine and training centers publications and curricula.

## JOINT TEST AND EVALUATION METHODOLOGY (JTEM) (COMPLETED APRIL 2009)

**Sponsor/Charter Date:** DOT&E/February 2006 – April 2009

**Purpose:** To develop methods and processes for defining and using a live, virtual, and constructive joint test environment to evaluate system-of-systems performance and joint mission effectiveness in order to institutionalize testing in a joint mission environment.

**Products/Benefits:** Delivered *Capability Test Methodology* version 3.0 in February 2009 that included the following:

- Methods and process guides
- A measures framework for joint mission effectiveness
- Handbooks

Additional products include the following:

- Reusable test artifacts (architectures, measures, and joint mission threads)
- Models for live, virtual, constructive, distributed joint mission environment development
- Processes for enhanced verification, validation, and accreditation
- Recommendations on needed changes to acquisition directives and instructions
- Solutions to identify testing and acquisition process gaps, seams, and overlaps

## JOINT TEST AND EVALUATION METHODOLOGY- TRANSITION (JTEM-T)

**Sponsor/Charter Date:** DOT&E/May 2009

**Purpose:** To integrate the JTEM methods and processes into component and agency test organizations, beginning with the operational test agencies while facilitating the methods and

processes used in ongoing tests for the Global Combat Support System-Joint and Digitally-Aided Close Air Support programs.

## Products/Benefits

- Institutionalize enhanced methods and processes needed to effectively test in a joint mission environment

- Determine additional training and skill sets needed by the testing and acquisition workforces to meet the enhanced methods and processes.

## QUICK REACTION TESTS

### ENGAGE ON REMOTE (EOR) (COMPLETED MARCH 2009)

**Sponsor/Charter Date:** North American Aerospace Defense Command/February 2008

**Purpose:** To develop joint TTP that enhance air defense targeting by providing fire-control-quality data via tactical data link from surface-based sensors to an aircraft cockpit.

**Products/Benefits:** TTP that enhance pilot's ability to successfully engage a variety of threats to include low-speed and low-visibility unmanned aerial vehicles while:

- Increasing pilot situational awareness and reducing workload in a high demand environment
- Enhancing aircraft and pilot survivability
- Updating National Capital Region Integrated Air Defense System and Deployable Homeland Air and Cruise Missile Defense concept of operations

### JOINT BASE EXPEDITIONARY TARGETING AND SURVEILLANCE SYSTEM-COMBINED (JBETSS-C) (COMPLETED MARCH 2009)

**Sponsor/Charter Date:** U.S. Central Command/June 2008

**Purpose:** To provide joint TTP for the employment of the Base Expeditionary Targeting and Surveillance System-Combined.

**Products/Benefits:** Joint force commanders in U.S. Central Command received a handbook on the use of the BETSS-C family of systems to provide protective measures that reduce the risk of combat injuries and deaths at forward operating bases, joint security sites, main supply routes, and combat outposts. The JBETSS-C project published 5,000 handbooks to coincide with the fielding of BETSS-C systems.

### JOINT COMBAT OUTPOST (JCOP) (COMPLETED MARCH 2009)

**Sponsor/Charter Date:** U.S. Central Command and the Army Engineer Research and Development Center/February 2008

**Purpose:** To develop joint TTP to defend against a vehicle-borne IED attack against a combat outpost.

**Products/Benefits:** TTP to defend combat outposts against vehicle-borne IED attacks and a handbook that addresses many of the material and equipment challenges that joint forces conducting contingency operations face.

### JOINT COMMUNICATIONS REDUNDANCY (JCR) (COMPLETED JULY 2009)

**Sponsor/Charter Date:** U.S. Northern Command/June 2008

**Purpose:** To develop joint TTP for the employment of strategic and contingency operational communications procedures.

**Products/Benefits:** Provided empirical data to support recommendations to the joint operational, training, and acquisition communities concerning redundant communication paths. Developed, validated, and delivered guidance for the joint employment of strategic and operational communications procedures.

### JOINT DEFENSE SUPPORT TO CIVIL AUTHORITIES (JDSCA)

**Sponsor/Charter Date:** U.S. Northern Command/July 2009

**Purpose:** To develop, assess, and validate concept of operations and TTP for brigade personnel providing operational support to civil authorities in disaster relief missions.

**Products/Benefits:** Handbook, concept of operations, and TTP that will enhance the capabilities of local, state, and federal emergency management authorities to better utilize DoD assets during disaster response.

### JOINT ENTRY CONTROL POINT/ESCALATION OF FORCE PROJECT (JEEP)

**Sponsor/Charter Date:** U.S. Central Command/December 2008

**Purpose:** To develop concept of operations and TTP to adequately train troops on escalation of force at entry control points.

**Products/Benefits:** A handbook that improves training on force protection and escalation of force processes at entry control points.

### JOINT EARLY WARNING OPERATOR (JEWOP)

**Sponsor/Charter Date:** U.S. Central Command/December 2008

**Purpose:** To assess U.S. Central Command's ballistic missile warning network and document the existing warning architecture, current platforms involved in the warning mission, and current

methods of information collection, processing, reporting, and dissemination.

**Products/Benefits:** TTP for allied and joint forces in the U.S. Central Command's area of responsibility to improve their capabilities to detect, track, and report enemy ballistic missiles.

## **JOINT SNIPER DEFEAT (JSD) (COMPLETED OCTOBER 2008)**

**Sponsor/Charter Date:** Army Infantry Center/September 2007

**Purpose:** To mitigate the threat snipers pose to coalition forces.

**Products/Benefits:** Increased situational awareness and force protection measures that reduce casualties from sniper attacks. A handbook that provides guidance on the use of sniper defeat systems that have been fast tracked to operational theaters and on other sniper defeat solutions such as exposure reduction and counter-sniper observation.

## **JOINT SYSTEMS PRIORITIZATION AND RESTORATION (JSPAR)**

**Sponsor/Charter Date:** U.S. Northern Command (USNORTHCOM)/July 2009

**Purpose:** To develop and validate North American Aerospace Defense Command, USNORTHCOM, and U.S. Pacific

Command coordinated TTP for continuity of communications for DoD entities in the state of Alaska.

**Products/Benefits:** A strategy to implement MINIMIZE (an order from a commander that normal message, telephone, and e-mail traffic be reduced drastically so that vital messages are not delayed) message protocols between USNORTHCOM and other agencies during disruptions to normal communications.

## **JOINT UNMANNED AIRCRAFT SYSTEM FULL-MOTION VIDEO INTEGRATION FOR COMMAND AND CONTROL (JUFIC)**

**Sponsor/Charter Date:** Air Force Warfare Center and Joint Unmanned Aircraft Systems Center of Excellence/December 2008

**Purpose:** To develop TTP to improve the commander's ability to effectively use full-motion video from unmanned aircraft systems for command and control.

**Products/Benefits:** Improved integration of unmanned aircraft system full-motion video within various command and control systems supporting operational and tactical combat operations centers.