

## Joint Test and Evaluation Program

The Joint Test and Evaluation (JT&E) Program provides non-materiel solutions to critical warfighting issues. It charters operational test projects that improve joint warfighting capabilities with existing equipment. The program develops solutions to joint operational problems and measures the associated improvements through enhanced tactics, techniques, and procedures (TTP). It also measures improvements brought about by enhanced testing methodologies. The JT&E Program's objective is to provide rapid solutions to 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 that focus on emerging needs of today's warfighters in FY08:

- Joint Command and Control for War on Terror Activities (JC2WTA) \*
- Joint Mobile Network Operations (JMNO)
- Joint Test and Evaluation Methodology (JTEM)
- Joint Integrated Command and Control for Maritime Homeland Defense (JICM) \*
- Joint Command and Control for Net-Enabled Weapons (JC2NEW)
- Joint Airspace Command and Control (JACC)

- Joint Air Defense Operations-Homeland (JADO-H)
- Joint Electronic Protection for Air Combat (JEPAC)
- Joint Non-Kinetic Effects Integration (JNKEI)
- Joint Fires Coordination Measures (JFCM) Joint Test \*

The JT&E Program instituted a quick reaction test (QRT) capability in 2004 to respond to pressing warfighter needs. The program managed 10 QRTs during FY08:

- Joint Sniper Defeat (JSD)
- Joint Combat Outpost (JCOP)
- Engage On Remote (EOR) \*
- Joint Base Expeditionary Targeting and Surveillance System-Combined (JBETSS)
- Joint Communications Redundancy (JCR)
- Joint Contingency Operations Base (JCOB) \*
- Joint Theater Ballistic Missile Early Warning (JTBMEW) \*
- Joint Tactical Tomahawk Targeting (JHAWK) \*
- Joint Integration of Nationally-Derived Information (JINDI) \*
- Joint Logistics Global Combat Support System (JLGCSS) \*

(\* indicates projects closing in 2008)

### ACTIVE JOINT TESTS

#### JOINT COMMAND AND CONTROL FOR WAR ON TERROR ACTIVITIES (JC2WTA)

**Sponsor/Charter Date:** Navy/February 2006

**Purpose:** To develop joint TTP that enable a commander embarked on an *Ohio* class submarine to effectively exert command and control (C2) of distributed Special Operations Forces (SOF) without compromising the clandestine posture of the submarine. The JC2WTA project closed on September 30, 2008.

#### Products/Benefits to the Warfighter

The test products included a planners TTP handbook, flipbook, and interactive multi-media DVD. The Planners Handbook for SOF/SSGN Integration provides information, lessons learned, and recommendations for the effective employment of this submarine in support of SOF operations.

**Customer Feedback:** Lieutenant General Fridovich, U.S. Southern Command (USSOCOM) wrote to DOT&E, "Thank you so much for your support and your faith and vision in our test!! You made this effort educational and enjoyable."

#### JOINT MOBILE NETWORK OPERATIONS (JMNO)

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

**Purpose:** To develop 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 to the Warfighter

The use of JMNO TTP will:

- Improve mobile network access while maintaining quality of service
- Enhance mobile users' connectivity to their home network resources while maneuvering
- Enable interoperability while maintaining robust information assurance

#### JOINT TEST AND EVALUATION METHODOLOGY (JTEM)

**Sponsor/Charter Date:** DOT&E/February 2006

**Purpose:** To improve testing throughout the acquisition life cycle using a realistic joint mission environment. JTEM is developing 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.

## Benefits to the Warfighter

JTEM will deliver Capability Test Methodology version 3.0 in February 2009 that will include:

- Methods and processes guides
- New evaluation and analytic methods
- A measures framework for joint mission effectiveness
- Handbooks

Additional products include:

- 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 identified testing and acquisition process gaps, seams, and overlaps

## JOINT INTEGRATED COMMAND AND CONTROL FOR MARITIME HOMELAND DEFENSE (JICM)

**Sponsor/Charter Date:** U.S. Northern Command/March 2006

**Purpose:** To evaluate C2 processes to execute U.S. Northern Command's maritime homeland defense missions by enhancing the ability to detect and defeat an adversary's ability to strike the homeland using the maritime domain. The JICM project closed on September 30, 2008.

### Products/Benefits to the Warfighter

The listed JICM products directly benefit the warfighter:

- Maritime C2 Handbook consolidates maritime threat response (MTR) processes defined in existing concept of operations orders, and plans
- MTR Checklist provides a logical flow of actions to the maritime community for consideration by warfighters during an MTR event
- MTR Portal is a distributed, collaborative intranet workspace using existing DoD-licensed Microsoft software

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

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

**Purpose:** To improve the operational concepts and procedures for use of net-enabled weapons. The project's focus is to test and evaluate C2 processes required to exchange information between net-enabled weapons and the delivery platforms, sensor platforms, and C2 systems.

### Products/Benefits to the Warfighter

JC2NEW's TTP allows a Joint Force Commander to prosecute time-sensitive targets with net-enabled weapons. Other benefits are:

- Post-launch, net-enabled weapons TTP for dynamic targeting operations

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

## JOINT AIRSPACE COMMAND AND CONTROL (JACC)

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

**Purpose:** To provide faster, more lethal access to joint airspace for surface and airborne sensors, weapons, and C2 systems to carry out missions in support of forward operating bases (FOB) and maneuver elements.

### Products/Benefits to the Warfighter

Test products will detail de-centralized joint C2 processes:

- Provide the Army's Joint Combined Arm Training Division and Combined Arms Center with the JACC Handbook for Airspace C2 in Support of Maneuver Units and FOBs
- Contribute to the Air Land Sea Application Center's Airspace Control TTP
- Contribute to the Air Force's AFTTP 3-1 Theater Air Control System
- Contribute to the Army's Field Manual 3-52 Army Command and Control in the Combat Zone

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

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

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

### Products/Benefits to the Warfighter

JADO-H will provide joint TTP that standardize planning to counter homeland asymmetric air threats. Collaborative tools will include:

- D-HACMD process modeling that enables the warfighter to view the entire planning process
- Checklists for critical steps in the planning process
- An exercise planning guide
- A commander's planning handbook

## 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 complex electronic attacks using situational awareness tools and off-board sensors.

### Products/Benefits to the Warfighter

JEPAC provided a first draft of joint air-to-air counter-electronic attack TTP to the warfighter. Test results addressed in JEPAC's first field test directly assist tactical and operational planners in performing their mission. In addition, JEPAC developed a

training package that is currently taught by Marine Aviation and Weapons Tactics Squadron 1 and the Naval Strike and Air Warfare Center.

## JOINT NON-KINETIC EFFECTS INTEGRATION (JNKEI)

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

**Purpose:** To develop TTP to assist planners to integrate electronic attack, computer network attack, and space control-negation capabilities into planning.

### Products/Benefits to the Warfighter

JNKEI will improve the integration of non-kinetic effects during operational planning, thereby increasing the non-kinetic courses of action available. Additionally, JNKEI will coordinate with Service and joint doctrine and training centers to include the TTP in their publications and curriculum.

## JOINT FIRES COORDINATION MEASURES (JFCM)

**Sponsor/Charter Date:** Air Force/February 2005

**Purpose:** To improve the effectiveness of joint fires areas (JFAs) by establishing standardized operational TTP. The JFCM project closed on December 31, 2007.

### Products/Benefits to the Warfighter

JFCM provided JFA TTP that enables a Joint Force Commander to integrate fires in support of the campaign plan without further coordination with the JFA establishing authority. JFA TTP allows the Services to educate, train, and equip warfighters to train to one TTP that works in all theaters and battlespaces.

### Customer Feedback:

- Brigadier General Biscone, U.S. Central Command (USCENTCOM): “CENTCOM DJ-3 [Operations office] endorses the Joint Fires Area (JFA) tactics, techniques, and procedures (TTP) and supports transitioning the TTP into Joint Doctrine.”
- Lt General North, Commander, U.S. Central Command Air Force (USCENTAF): “It is imperative that we take immediate, proactive steps to standardize multi-Service TTP and strengthen operational cohesion across the joint force. The Joint Fires Area concept holds substantial merit and implementation efforts should proceed unabated.”
- Lt General North, Commander, USCENTAF: “Our success today depends on Airmen, Sailors, Soldiers, and Marines employing time-tested multi-Service TTP to orchestrate complex, lethal attacks with efficiency and precision.”

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## QUICK REACTION TESTS

### JOINT SNIPER DEFEAT (JSD)

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

**Purpose:** To focus on mitigating the threat snipers pose to coalition forces. Many new technologies have emerged to help warfighters combat the sniper threat, but the rapid development and distribution of these systems outstripped training on the equipment.

### Products/Benefits to the Warfighter

Warfighters will benefit through reduction of casualties from sniper attacks, the second greatest threat to coalition forces in Afghanistan and Iraq, and increased situational awareness and force protection measures. The JSD Handbook includes guidance on the use of sniper defeat systems that have been fast tracked to operational theaters, as well as non-materiel sniper defeat solutions such as exposure reduction and counter-sniper observation.

### JOINT COMBAT OUTPOST (JCOP)

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

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

### Products/Benefits to the Warfighter

The JCOP QRT will provide TTP to defend against IED attacks directed against combat outposts. Through the combined efforts

of the Army Test and Evaluation Command QRT team, the Joint Staff and Central Command Force Protection Directorates, the JCOB Handbook will address many of the materiel and equipment challenges that joint forces conducting contingency operations face on the asymmetric battlefield.

### ENGAGE ON REMOTE (EOR)

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

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

### Products/Benefits to the Warfighter

The EOR TTP enhances NORAD’s ability to successfully engage a variety of asymmetric threats to include low-speed and low-visibility unmanned aerial vehicles. The specific benefits of EOR are:

- Increased pilot situational awareness and reduced workload in a high demand environment
- Enhanced survivability against asymmetric threats
- Updated 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)

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

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

### Expected Products/Benefits to the Warfighter

A handbook will be fielded to Joint Force Commanders in USCENTCOM to provide protective measures to reduce the risk of combat injuries and death at forward operating bases, joint security sites, main supply routes, and combat outposts.

## JOINT COMMUNICATIONS REDUNDANCY (JCR)

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

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

### Expected Products/Benefits to the Warfighter

The JCR QRT will provide TTP that addresses alternate combatant command communications backup procedures.

## JOINT CONTINGENCY OPERATIONS BASE (JCOB)

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

**Purpose:** To develop joint force protection TTP for U.S. military contingency camps established during security, stability, transition, and reconstruction operations. The JCOB project closed on October 15, 2007.

### Benefits to the Warfighter

The JCOB force protection handbook for contingency operations bases provided TTP against rockets, artillery, mortars, and vehicle-borne IEDs, and reduced risk of personnel injury. The test was co-sponsored by the Joint Staff and USCENTCOM Force Protection Directorates.

## JOINT THEATER BALLISTIC MISSILE EARLY WARNING (JTBMEW)

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

**Purpose:** To develop joint TTP that provide precise theater ballistic missile early warning to U.S. Forces Korea, Combined Forces Command. The JTBMEW project closed on October 15, 2007.

### Benefits to the Warfighter

The JTBMEW operator's handbook standardized use of the complex early warning system and increased confidence and accuracy in warnings.

**Customer Feedback:** Outbriefs to Major General Morgan, head of Operations, U.S. Forces Korea and Brigadier General Keltz, head of the 7th Air Force Air Operations Center, in October 2007, established the development and coordination of early warning requirements with U. S. Pacific Command Missile Defense Agency, Joint Theater Air and Missile Defense Organization, and U.S. Strategic Command and the development of early warning

exercise objectives to exercise, assess, and improve its overall capability.

## JOINT TACTICAL TOMAHAWK TARGETING (JHAWK)

**Sponsor/Charter Date:** U.S. Special Operations Command (USSOCOM) and Commander, Second Fleet/April 2007

**Purpose:** To provide multi-Service TTP for employment of the Tactical Tomahawk weapon system by special operations and other expeditionary forces. The JHAWK project closed on April 9, 2008.

### Products/Benefits to the Warfighter

JHAWK QRT delivered an executable TTP for third party targeting of the Tomahawk cruise missile by units such as special operations teams in striking time sensitive targets.

### Customer Feedback:

- Rear Admiral Kernan, USSOCOM: "Tactical TOMAHAWK (TACTOM) cruise missiles are uniquely suited to support the prosecution of targets in the Global War on Terror. Since initial fielding of TACTOM ... no Joint Tactics, Techniques, and Procedures (JTTP) have been devised for the tactical targeting of this new global strike capability."
- Lieutenant Colonel Janney, USSOCOM: "... Have forged a partnership that built, tested, and validated a TTP that will work, today, within the real world political and Service-cultural constraints that are really out there."

## JOINT INTEGRATION OF NATIONALLY-DERIVED INFORMATION (JINDI)

**Sponsor/Charter Date:** Air Force Warfare Center and the U.S. Pacific Command/January 2007

**Purpose:** To improve methods to provide nationally-derived information from regional cryptologic centers to front-line forces through integration of long-haul architectures and tactical data links. The JINDI project closed on April 4, 2008.

### Products/Benefits to the Warfighter

JINDI TTP enhances situational awareness by disseminating actionable intelligence into a common, tactical data link. The TTP benefits the national intelligence community by providing it the necessary methodologies for the receipt of near-real time tactical information to enable them to better focus their intelligence collection strategies and threat reporting priorities in direct support to tactical forces.

## JOINT LOGISTICS GLOBAL COMBAT SUPPORT SYSTEM (JLGCSS)

**Sponsor/Charter Date:** The Joint Staff and the U.S. Joint Forces Command/February 2007

**Purpose:** To develop TTP for the Global Combat Support System that allows the Services to integrate the supply chain by obtaining supply transactions in support of the warfighter. The JLGCSS project closed on April 25, 2008.

**Benefits to the Warfighter**

JLGCSS provided the combatant commander a fused joint logistics picture that provides actionable joint logistics knowledge so that the proper items are delivered at the proper place at the proper time.

**Customer Feedback:** Joint Staff J4, Logistics, Lieutenant General Christianson praised the QRT methodology used to develop the capability mapping and how it incorporated the validation event results. He stated that once you establish a sound methodology, you can use it to examine many processes.

# JT&E PROGRAM