

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 (TTPs) 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 acquisition process. Projects annotated with an asterisk (*) closed in FY10.

The program managed seven joint tests in FY10 that focused on the needs of operational forces:

- Joint Air Defense Operations-Homeland (JADO-H)
- Joint Civil Information Management (J-CIM)
- Joint Data Integration (JDI)
- Joint Electronic Protection for Air Combat (JEPAC)*
- Joint Integration of Maritime Domain Awareness for Homeland Defense (JIMDA)
- Joint Jamming Assessment and Mitigation (JJAM)
- Joint Non-Kinetic Effects Integration (JNKEI)*

The JT&E Program instituted a quick reaction test (QRT) capability in 2003 to respond to the pressing needs of today's deployed forces.

The program managed 12 QRTs in FY10:

- Foreign Humanitarian Assistance/Disaster Relief (FHA/DR)
- Host Based Security System (HBSS)
- Joint Defense Support to Civil Authorities (JDSCA)*
- Joint Entry Control Point/Escalation of Force Project (JEEP)*
- Joint Early Warning Operator (JEWOW)*
- Joint Mapping the Human Terrain (JMAP-HT)*
- Joint Maritime Evaluation of Transit Escort (J-METE)
- Joint Modular Protection System (JMPS)
- Joint Passive Electronic Radio Frequency Emission Classification and Tracking (J-PERFECT)
- Joint Rapid Attack Process (J-RAP)*
- Joint Systems Prioritization and Restoration (JSPAR)*
- Joint Unmanned Aircraft System Full-Motion Video Integration for Command and Control (JUFIC)*

The program executes special projects, as directed by DOT&E, that address issues DoD-wide.

The program managed two special projects in FY10:

- Hostile Fire Indicator (HFI)*
- Joint Test and Evaluation Methodology-Transition (JTEM-T)

JOINT TESTS

JOINT AIR DEFENSE OPERATIONS-HOMELAND (JADO-H)

Sponsor/Charter Date: North American Aerospace Defense (NORAD) and U.S. Northern Command (USNORTHCOM)/August 2007

Purpose: To develop joint tactics, techniques, and procedures (TTPs) and planning processes for deployable integrated air defense systems (D-IADS)

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

- D-IADS 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 CIVIL INFORMATION MANAGEMENT (J-CIM)

Sponsor/Charter Date: U.S. Special Operations Command (USSOCOM)/August 2008

Purpose: To research and develop processes and joint TTPs to standardize the collection, consolidation, and sharing of 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 J-CIM user's guide that will:

- Improve sharing of unclassified information
- 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 civil affairs resources

JOINT DATA INTEGRATION (JDI)

Sponsor/Charter Date: U.S. Joint Forces Command (USJFCOM) and Joint Task Force (JTF) 519/August 2008

Purpose: To develop joint TTPs for Global Command and Control System – Joint (GCCS-J) operators, track data managers, and system administrators to provide the joint task force and combatant commanders with an effective common tactical picture.

Products/Benefits: Data Management Handbook with Quick Reference Guides for Developing and Sharing the Common Tactical Picture. This product 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. Other benefits:

- Improved policies and procedures for implementation emphasizing common tactical picture management
- U.S. Pacific Command (USPACOM), U.S. European Command (USEUCOM), and U.S. Southern Command (USSOUTHCOM) established and now routinely use the Joint Data Network Operations Cell (JDNO) at JTF headquarters
- U.S. Strategic Command (USSTRATCOM) reported a marked overall improvement in USPACOM and USEUCOM theater inputs to Global Common Operating Picture (COP) after JDI recommendations were adopted within their commands.

Leadership Feedback:

“Our COP management...has seen significant improvement, providing a great shared situational awareness tool. The Joint Data Network Operations Concept is being incorporated at our JTF capable service components and the Headquarters is coordinating a plus-up in its personnel to support the Theater COP.”

Maj Gen Harold Moulton (USEUCOM J3) to Maj Gen David Edgington (USJFCOM J02)

“In short, the net result of the JFCOM – JTF-519 partnership is a reliable GCCS picture. This has become an ‘expectation’ and an ‘assumption’ and operational decisions within the JTF JOC [Joint Operations Center] are supported directly from our ‘near real time’ picture. Through the efforts of your team our Joint C2 [command and control] system matured beyond just being a concept; it is an ‘operational necessity’ for both the JTF and Pacific Fleet.”

RDML Thomas Shannon (U.S. Pacific Fleet N3) to Maj Gen David Edgington (USJFCOM J02)

“JDI personnel provided assistance to the 2nd Fleet JDNO Cell who enabled the JTF/MNF [Multinational Force] to properly manage dynamic track data over the GCCS-J network. JDI also provided a team to evaluate USSOUTHCOM's manning and TTPs for presenting a COP at the Combatant Command Headquarters. The team clearly identified shortfalls in the J33 that we are now correcting through hiring actions and SOP [Standard Operating Procedure] updates.”

RDML Steve Ratti (USSOUTHCOM J3) to RDML Dan Davenport (USJFCOM J02)

JOINT ELECTRONIC PROTECTION FOR AIR COMBAT (JEPAC)

(Completed September 2010)

Sponsor/Charter Date: Air Force/August 2007

Purpose: To develop, test, and evaluate joint TTPs to enhance air combat capability in the presence of Advanced electronic attack (AdvEA) waveforms

Products/Benefits:

- Joint counter-AdvEA TTPs
- Significantly increased awareness of AdvEA technologies and threat
- Comprehensive kill-chain execution testing in operationally realistic AdvEA environment

- Enhanced AdvEA representations within the virtual and constructive environments
- Robust live joint training environment with unprecedented levels of opposition forces utilizing AdvEA
- Reaffirmed electronic protection capabilities gaps and developed workarounds
- Technical data and findings shared with complementary organizations
- Documentation and data to support upgrade of Service air warfare school syllabi
- Establishment of a permanent program of record to conduct electromagnetic spectrum vulnerability assessments and joint operational testing and evaluation of current and emerging technologies and TTPs

JOINT INTEGRATION OF MARITIME DOMAIN AWARENESS FOR HOMELAND DEFENSE (JIMDA)

Sponsor/Charter Date: NORAD and USNORTHCOM/ August 2009

Purpose: To develop TTPs that synchronize maritime domain information for key decision makers across operations centers for homeland defense with comprehensive coordination across the maritime domain awareness community.

Products/Benefits:

- Integrated maritime domain awareness processes, procedures, and checklists
- Maritime Information Handbook
- Maritime central access portal

JOINT JAMMING ASSESSMENT AND MITIGATION (JJAM)

Sponsor/Charter Date: Air Force/August 2009

Purpose: To develop joint TTPs that mitigate the effects of adversary purposeful interference to satellite communications (SATCOM). JJAM will formulate, refine, and improve the methods and processes that allow operational forces to effectively conduct operations when satellite communications are degraded.

Products/Benefits:

- Multi-Service TTPs, handbooks, and operator checklists
- Seamless and effective command and control through mitigation of purposeful interference to SATCOM
- Heightened awareness of the threat and consequences of SATCOM purposeful interference
- Shortened SATCOM purposeful interference mitigation timelines
- Real-time access for operational forces to SATCOM mitigation improvements and refinements
- Incorporation of SATCOM mitigation procedures into joint exercises
- Enhanced operations in a SATCOM degraded environment
- Recommendations on needed changes to joint publications, USSTRATCOM instructions, and user checklists

JOINT NON-KINETIC EFFECTS INTEGRATION (JNKEI)

(Completed September 2010)

Sponsor/Charter Date: USSTRATCOM/August 2007

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

Products/Benefits:

- Improved integration of non-kinetic capabilities during operational planning that expand the range of possible courses of action for joint force commanders
- Information exchange requirements based on the JNKEI TTPs and incorporated into the Integrated Strategic Planning and

Analysis Network (ISPAN) and Virtual Integrated Support for the Information Operations Environment (VisION) collaborative tools

- Input provided to Joint Publication (JP) 5-0, Joint Operational Planning; Joint Test Publication 3-12, Cyberspace Operations; JP 3-13, Information Operations; and JP 3-60, Joint Targeting
- JNKEI TTPs provided to Joint Information Operations Planning Course (Joint Forces Staff College), Joint Targeting School (USJFCOM), and Advanced Integrated Warfighter Weapons Instructor Course (U.S. Air Force Weapon School)
- JNKEI TTPs provided to USEUCOM; USPACOM; U.S. Force, Korea; and USSTRATCOM to enhance existing standard operating procedures

QUICK REACTION TESTS

FOREIGN HUMANITARIAN ASSISTANCE/DISASTER RELIEF (FHA/DR)

Sponsor/Charter Date: USSOUTHCOM/July 2010

Purpose: To develop, assess, and validate concepts of operations and TTPs for operational and tactical forces tasked to provide humanitarian assistance to partner nations subsequent to a natural disaster abroad.

Products/Benefits: A FHA/DR handbook containing concepts of operation and TTPs that enable Title 10 forces of all Services to effectively integrate disaster response efforts with the Department of State, the U.S. Agency for International Development, the United Nations, and non-governmental organizations, enhancing speed, effectiveness, and unity of effort.

Products/Benefits: The Defense Support to Civil Authorities Handbook, containing a Tactical Commander and Staff Tool Kit and a Liaison Officer Tool Kit, equips military forces of all Services to effectively integrate disaster responses with local, state, tribal, and federal emergency managers, and enhances unity of effort with civil authorities.

HOST BASED SECURITY SYSTEM (HBSS)

Sponsor/Charter Date: USSTRATCOM and Defense Information Systems Agency/January 2010

Purpose: To develop, assess, and validate standard enterprise HBSS configurations and TTPs that will give DoD joint network defenders the ability to effectively implement and use the HBSS for prevention, detection, diagnosis, and response to cyber attacks, as well as maintain situational awareness in the cyber domain.

Products/Benefits: A handbook composed of proven standard HBSS enterprise configurations and TTPs that USSTRATCOM's Cyber Command can use to direct DoD network defenders to ensure critical mission operations in the face of a cyber attack.

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

(Completed January 2010)

Sponsor/Charter Date: U.S. Central Command (USCENTCOM)/December 2008

Purpose: To develop concepts of operations and TTPs to train troops adequately on escalation of force at entry control points.

Products/Benefits: A handbook that improves training and execution of timely and relevant responses to enemy attacks directed against an installation while minimizing civilian casualties.

JOINT DEFENSE SUPPORT TO CIVIL AUTHORITIES (JDSCA)

(Completed July 2010)

Sponsor/Charter Date: USNORTHCOM/July 2009

Purpose: To develop, assess, and validate concepts of operations and TTPs for tactical level units providing operational support to U.S. civil authorities subsequent to a natural disaster.

JOINT EARLY WARNING OPERATOR (JEW)

(Completed February 2010)

Sponsor/Charter Date: USCENTCOM/December 2008

Purpose: To assess USCENTCOM'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: A handbook for allied and joint forces in USCENTCOM's area of responsibility to improve their capabilities to detect, track, and report enemy ballistic missiles.

JOINT MAPPING THE HUMAN TERRAIN (JMAP-HT)

(Completed May 2010)

Sponsor/Charter Date: USCENTCOM/September 2009

Purpose: To develop, validate, and field JMAP-HT concepts of operations and TTPs for immediate deployment to Civil Affairs and Human Terrain units supporting U.S. forces in the Horn of Africa and Operation Enduring Freedom in Afghanistan.

Products/Benefits: A handbook that enables effective civil information sharing among staffs at the operational and tactical levels.

JOINT MARITIME EVALUATION OF TRANSIT ESCORTS (J-METE)

Sponsor/Charter Date: U.S. Transportation Command and U.S. Coast Guard Forces Command/January 2010

Purpose: To develop and test the concepts of operations and TTPs for the employment of joint Service support, personnel, and equipment that will assist in reducing the threat from asymmetric underwater attacks to high value ships while transiting critical ports, restricted waterways, and chokepoints in the continental United States.

Products/Benefits:

- A J-METE handbook outlining the TTPs to detect and interdict asymmetric underwater threats for ships in transit
- Concepts of operations to enhance mission success against asymmetric underwater threats for United States commanders responsible for escorting high value ships transiting militarily significant ports, restricted waterways, and chokepoints

JOINT MODULAR PROTECTION SYSTEM (JMPS)

Sponsor/Charter Date: USCENTCOM/July 2010

Purpose: To develop and validate TTPs for Modular Protective Systems that enhance force protection to forward deployed military personnel.

Products/Benefits: TTPs that improve use of force protection modules for allied and joint forces in USCENTCOM's area of responsibility

JOINT PASSIVE ELECTRONIC RADIO FREQUENCY EMISSION CLASSIFICATION & TRACKING (J-PERFECT)

Sponsor/Charter Date: NORAD and USNORTHCOM/March 2010

Purpose: To develop joint concepts of operations and TTPs for sustained air vigilance operations against strategic aviation threats to the homeland.

Products/Benefits: A standard, globalized concept of operations and TTPs that optimize the execution and employment of multi-Service, combatant command, and national agency capabilities to detect, track, identify, and evaluate air threats to the United States.

JOINT RAPID ATTACK PROCESS (JRAP)

Sponsor/Charter Date: USSTRATCOM/January 2010

Purpose: To investigate, evaluate, and make recommendations to improve cyber mission planning methods used to employ alternative approaches to leverage current capabilities against complex targeting challenges.

Products/Benefits:

- Cyber playbook
- Operational TTPs to improve cyber mission planning, rehearsal, execution, and assessment

JOINT SYSTEMS PRIORITIZATION AND RESTORATION (JSPAR)

(Completed July 2010)

Sponsor/Charter Date: USNORTHCOM/July 2009

Purpose: To develop and validate NORAD, USNORTHCOM, and USPACOM coordinated TTPs for continuity of communications for DoD entities in the state of Alaska.

Products/Benefits:

- Drafted the NORAD and USNORTHCOM Instruction to implement MINIMIZE protocol (an order from a commander that normal message, telephone, and e-mail traffic be reduced drastically so that vital messages are not delayed) for strategic and operational communications between NORAD and USNORTHCOM and its subordinate units
- Delivered a methodology supplementing Defense Information Systems Agency Circular 310-130-4, Defense Users Guide to the Telephone Service Priority System. This work resulted in the prioritization of land-based strategic and operational communications services and circuits among USPACOM, NORAD and USNORTHCOM, Services, and DoD Agencies.

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

(Completed February 2010)

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

Purpose: To develop TTPs that improve the commander's ability to effectively use unmanned aircraft systems full-motion video for command and control through the fusion of operational graphics, unit locations, and full-motion video.

Products/Benefits:

- TTPs that improve the integration of unmanned aircraft systems' full-motion video within various command and control systems supporting operational and tactical combat operations centers
- Verified set of measures of evaluation and performance for use of unmanned aircraft systems' full-motion video

SPECIAL PROJECTS

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

Sponsor/Charter Date: DOT&E/May 2009

Purpose: To integrate, implement, and apply the JTEM-developed Capability Test Methodology methods and processes into component and agency test organizations in support of the Testing in a Joint Environment Roadmap, with particular emphasis placed on enhancing and improving current Operational Test Agency (OTA) test processes

Products/Benefits:

- Documented improvements to OTA and other component and agency test and assessment processes that improve and enhance the ability to test system-of-systems in a joint environment
- Functional and reusable mission and task-based measures decomposition process and a complementary analysis framework to facilitate the ability to test in a joint environment

HOSTILE FIRE INDICATOR (HFI) SPECIAL PROJECT

(Completed June 2010)

Sponsor/Charter Date: DOT&E/November 2009

Purpose: To develop TTPs for emerging Hostile Fire Indication (HFI) materiel solutions to help improve rotary wing aircraft survivability against unguided munitions.

Products/Benefits:

- An initial HFI TTP to assist the Services as a starting point in updating their platform-specific TTPs as development, testing, and fielding of HFI is completed
- Recommended the Services consider adding an HFI training capability into existing helicopter simulators used for tactics training in conjunction with HFI fielding
- Assisted the Naval Air Manned Flight Simulator at the Naval Air Station Patuxent River, Maryland, with efforts to obtain an HFI simulation capability

