

JTEP Demonstration Highlights

BAYEX 08 – APRIL 17-20, 2008



JTEP supported a field training exercise facilitated by the CA Specialized Training Institute (CSTI), CA Office of Emergency Services (OES), and the 95th Civil Support Team (CST). The exercise featured a simulated terrorist attack on the Port of Oakland with simulated radiological and chemical hazards and IEDs. Venues included the Union Pacific (UP) Railyard, American President Lines (APL) berths, the Bay Area Rapid Transit (BART) trans-bay tube, and Maritime Reserve Fleet ships. Participants from 4 CSTs, 129th RW CA Air National Guard, the US Coast Guard, the Port of Oakland, BART, the FBI, and local first responder agencies were involved. JTEP support included DFIRST and JTEP Cell Phone Tracker (JCPT) tracking of the 129th RW aircraft, ground vehicles, survey teams, first responders, and victims; micro-geo-specific terrain models; JCATS; and synchronized networked and handheld video. Before the live exercise, JTEP provided a simulation driven tabletop rehearsal exercise, and afterward, a complete After Action Review with all of the tracking and video data collected from the event.

ARDENT SENTRY VIGILANT GUARD – MAY 10-14, 2007



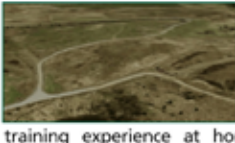
JTEP supported Civil Support Teams (CST) in their response to a simulated nuclear attack on Indianapolis, IN. The exercise took place at Muscatatuck Urban Training Center (MUTC), IN, and enabled JTEP to demonstrate 2D/3D tracking of CSTs, an expanded synchronized video network, and the AAR and Take Home Package (THP) in a large-scale exercise with national exposure.

NOVEX 06 – NOVEMBER 3-8, 2006



JTEP supported a field training exercise facilitated by the CA Specialized Training Institute (CSTI), CA Office of Emergency Services (OES), and the 95th Civil Support Team (CST). The exercise involved over 30 first responder agencies across 6 emergency disciplines in a free-play, real time weapons of mass destruction (WMD) exercise at the Orion Park Housing Complex at Moffett Field, CA. JTEP support included DFIRST/IGRS tracking of vehicles and first responders, micro-geo-specific terrain models, and battlefield effects and hand-held video (provided by Cubic Corporation). Before the live exercise, JTEP provided two simulation supported tabletop rehearsal exercises for participating agencies, demonstrating the value of this technology for mission rehearsal.

XCTC EXERCISES – JUNE-JULY 2005, JULY 2006



JTEP provided enabling training technologies to the first XCTC exercises at Wendell H. Ford Regional Training Center (WHFRTC), KY, Camp Atterbury Joint Maneuver Training Center (CAJMTC), IN, and Muscatatuck Urban Training Center (MUTC), IN. XCTC provides combat training experience at homestation or regional training centers. JTEP technologies made XCTC possible and continue to contribute to the program. XCTC is now an independent program, recently completing exercises at Fort Chaffee, AR and Orchard Training Area, ID.

L-V-C TRAINING FOR USMC – APRIL-MAY, 2005



JTEP's first joint exercise, held at Twentynine Palms, CA, supported Marine Corps Live-fire training on the Mobile Assault Course from 26-29 April and the Convoy Course from 4-6 May. JTEP assets included DFIRST and IGRS tracking for vehicles and dismounts, 2D/3D AAR, the virtual UAV for situational awareness, JCATS for representing live-fire targets (OPFOR), and the DAAR that was connected, via the California Guard's IC4U, to SRI- Washington, DC, providing JTEP's first cross-country DAAR feed.

ONGOING L-V-C TRAINING SUPPORT TO CALIFORNIA NATIONAL GUARD – 2005-Present



JTEP has provided on-going technology support to weekend training exercises and annual training (AT) for units of the California National Guard and the Marine Corps Reserve. Training focuses on Current Operating Environment (COE) missions. Exercises have included weekend V-C convoy training at local armories using the Virtual Convoy Operations Trainer (VCOT), live convoy exercises (1-149AR June 2005, 649MP April 2006, and 2245B June 2006) involving DFIRST/IGRS/MILES 2000 instrumentation and IED simulators, and the use of both systems together to enable virtual mission rehearsal of live convoy exercises at Camp Roberts, CA (April and June 2006).

DSCA TRAINING JAN-04 AND FEB-05



JTEP's first DSCA exercise, in January, 2004 was a simulated WMD attack in Sacramento County. Numerous state and local agencies participated in this JCATS simulation-driven exercise. JTEP's second DSCA exercise supported CERFP Follow-on Force training at Camp Roberts.

L-V CONVOY TRAINING – SEPTEMBER, 2004



1-149AR, scheduled for peacekeeping operations in Kosovo, requested JTEP support for their pre-mobilization training at Camp Roberts, CA. JTEP assets requested included DFIRST, IGRS, 2D/3D AAR, and the Virtual-Constructive UAV. Additionally, JTEP linked MILES 2000 with these systems to capture simulated small arms engagements. The training event marked JTEP's successful transition from technology demos to supporting actual training events and was the first demonstration of XCTC technologies.

L-C AND L-V-C DEMOS – THE FIRST STEPS – 2003



MAY 2003: The first successful JTEP demonstration was held at Camp Roberts and Camp San Luis Obispo, CA. This exercise linked a live system (DFIRST) with a constructive system (JCATS) at two training locations and demonstrated live-constructive direct and indirect fire engagements, linked networks, and use of high-resolution, correlated synthetic terrain.



DECEMBER 2003: The second JTEP demonstration was also held at Camp Roberts and Camp San Luis Obispo. Two Live training systems (DFIRST and IGRS) were linked with a virtual training system (CCTT), two constructive training systems (JCATS and CCTT SAF), and a virtual and constructive unmanned aerial vehicle (UAV). Live-constructive and virtual-constructive direct and indirect fire engagements were demonstrated, as were linked communications networks, stitched German and Camp Roberts terrain, and a distributed AAR linking four locations.

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JTEP

Joint Training Experimentation Program



Distributed Training Concept for the National Guard

SRI International

What is JTEP?

JTEP is a Joint National Guard Bureau/California National Guard program to link existing training systems in a Live-Virtual-Constructive (LVC) environment to improve overall readiness of Guard forces. JTEP began in September 2002 and has developed a growing set of LVC training capabilities through targeted exercises to demonstrate the ability of LVC to enhance training. Starting in September 2004, JTEP transitioned from technology demos to supporting scheduled training exercises. JTEP continues to provide an increasing set of capabilities from which units can choose to meet individual combat or DSCA training objectives. JTEP focuses on:



- ▶ Combat training, including combined arms, urban/convoys operations, and other Contemporary Operating Environment (COE)-based scenarios

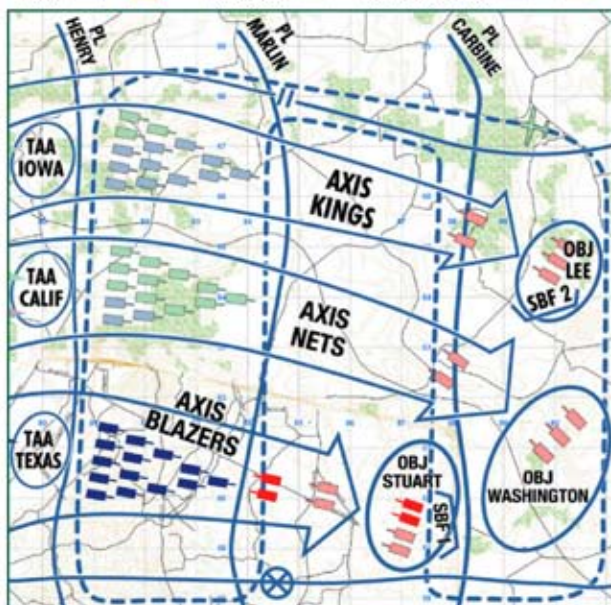


- ▶ Defense Support to Civilian Agencies (DSCA) training for Homeland Defense, Crisis Response, and CERFP, from senior leaders to first responders



- ▶ Testbed to evaluate new training systems/technologies to enhance Guard training, providing leave-behind capabilities, e.g., systems to support the XCTC

Live: Virtual: Constructive:



JTEP Components (Current ——— Planned - - - -)



JTEP Program Innovations and Products



- ▶ Virtual-Constructive (V-C) UAV using a JCATS flight model (C) and a camera operator station (V) is able to provide a seamless view of the LVC environment



- ▶ Correlated Virtual Terrain enables JTEP to provide a high-level of functional integration of systems. JTEP's geo-specific terrain provides recognizable 3D displays, including detailed building interiors, for AAR



- ▶ JTEP Net Radios (VOIP IAW DIS standard) provide communications between operators of LVC systems in distributed simulation centers and in vehicles in the field



- ▶ HUM-1 provides the capability to guise HMMWVs and other vehicles as friendly or OPFOR vehicles for low-cost maneuver and convoy training. The original HUM-1 design has evolved into the current Crew-Served Weapon kit used in DFIRST and XCTC



- ▶ JTEP Distributed After Action Review (DAAR) provides synchronized 2D and 3D displays, with audio, for participants in other parts of a range or across the country



- ▶ JTEP Take Home Package (THP) provides the exercise data, including maneuver, engagements, and recorded radio communications on a DVD that can be replayed at home station or at home



- ▶ JTEP Integrated Video Environment (JIVE) synchronizes networked video cameras with the 2D and 3D exercise data and voice, providing a real-time monitoring and AAR capability that maximizes situational awareness



- ▶ JTEP Cell Phone Tracker provides a small, lightweight GPS tracking capability for First Responder applications