JOINT WARFIGHTERS (JWF)

Joint Test and Evaluation Program		**Lead Service**
Authorized Manning:	36	Army
Total JT&E Budget:	$722.4M	
Charter Date:	4QFY97	
Completion Date:	1QFY02	

JT&E DESCRIPTION & CONTRIBUTION TO JOINT VISION 2020

The charter of the Joint Warfighters (JWF) Joint Test and Evaluation (JT&E) project is to investigate, evaluate, and improve the operational effectiveness of joint operations against time-sensitive surface targets (TSST) by evaluating and documenting current time-sensitive surface target processes and procedures in realistic operational scenarios. Potential improvements will be identified, prioritized, and coordinated with the appropriate commands. JWF will contribute to the ***Joint Vision 2020*** operational concepts of ***precision engagement*** and ***full-dimensional protection***.

JWF established a baseline by evaluating and documenting the current TSST processes and procedures in operational scenarios. Potential deficiencies and opportunities for improvements were identified. The previously coordinated potential improvements were installed and tested in environments

as closely aligned with baseline measurements as possible. Analysis of the collected data is being used to evaluate the effectiveness and suitability of the proposed enhancements.

For Joint Warfighter JT&E, the Army, Navy, Air Force, Marine Corps, and unified commands are designated as participating Services/commands, with the Army designated as the lead Service and executive agent.

BACKGROUND INFORMATION

Targeting in general, and the prosecution of time-sensitive targets in particular, was often cited as deficient in nearly all reports on the Persian Gulf War. Three examples of this issue are as follows:

- On February 26-27, 1991, a large portion (possibly 50 percent) of the Republican Guard Forces Command (RGFC) was allowed to escape across the Euphrates River. The RGFC escaped because of confusion and a breakdown in coordination.

- The first Army Tactical Missile System (ATACMS) ever fired in combat was delayed hours, in part, while appropriate clearance was coordinated by all of the various nodes. While procedures were refined during the course of the war, it was not unusual for subsequent firings to be delayed up to two hours for clearance.

- The lack of success in the engagement of SCUD missile launchers.

To address this shortfall in our warfighting capability, a Joint Feasibility Study was directed to conduct a thorough problem characterization on the prosecution of time-sensitive targets in a joint force.

DOT&E and the Deputy Director, Systems Assessment, approved the Program Test Plan with the Data Management Analysis Plan in December 1998.

TEST & EVALUATION ACTIVITY

JWF participated in Ulchi Focus Lens (UFL 99) Command Post Exercise (CPX) in the Republic of Korea in August 1999 to baseline the joint TSST prosecution process. Fifty-seven personnel deployed to Osan Air Base, Command Post (CP) Tango, Camp Humphreys, Red Cloud, Yongin, Pohang, and the USS Blue Ridge to stand side by side with the U.S. and Republic of Korea players and gamers to collect data on the joint prosecution of time-sensitive surface targets.

In October of 1999, Joint Warfighters began preparations for the UFL 00 test activity of the enhanced joint TSST process in the Korean Theater of Operations by analyzing the data collected during UFL 99. Enhancements were developed for implementation within the framework of the processes documented in the UFL 99 baseline test activity. Throughout the remainder of 1999 and through May 2000, JWF personnel worked with theater personnel from U.S. Forces Korea (USFK) (J3 and J6) and the Service components to refine, install, and test the enhancements in theater. The enhancements that were installed for testing during UFL 00 were:

- TSST Information Network. USFK's TSST operations consist of functional positions arrayed throughout various component operations and intelligence cells. While functional

positions offer varying levels of support for each TSST event, they are required to provide their respective inputs and must be able to coordinate with one another. This network provides functional positions the ability to coordinate laterally and share information quickly and accurately.

- TSST Guide. This guide is to be used as a ready reference of theater and component Tactics, Techniques, and Procedures (TTPs), capabilities, and reference materials. It reinforces existing training for augmentees as they "spin-up" on theater procedures and provides a primer for newly assigned personnel to understand the lateral coordination needed to integrate component warfighting capabilities. It consolidates theater TTPs into an easy-to-understand format and specifies what targeting elements and operational factors are critical to successful TSST prosecution. The TSST Guide will also contain a concept of operations (CONOPS) on how to use each collaborative tool.

- TSST Web Page and Server. The TSST Web Page is an extension of, and is linked to, the USFK/J3-OP web server to provide customized, near real-time information posting; specifically, component battle rhythm data and target information relating to TSST prosecution. The TSST Web Page displays TSST events, changes to the weaponeered, sourced Single Prioritized Integrated Target List (SPITL), and mobile target updates. The server permits shared applications, allowing multiple sources the capability to post information; e.g., mission report data and battle damage assessment.

- Collaborative Tool. USFK/J6-IS has authorized the use of Microsoft NetMeeting version 2.11. As an interim enhancement, NetMeeting will be incorporated by the TSST Information Network to support component lateral coordination until DoD implements a permanent collaborative solution. The TSST Information Network provides the TSST functional positions the capability to coordinate in a more accurate, complete, and timely manner. The current concept of operation focuses on multi-point chat capability between 20 positions and "whiteboarding" between intelligence positions at the releasable to South Korean personnel level.

- Secure Conferencing. This provides the TSST Information Network a secure, bridged communication capability. Its primary functions are to provide lateral notification of TSST execution, notify members of the TSST Information Network of a collaborative session, and serve as backup tool for lateral coordination.

During June and July 2000, JWF served as consultants to train theater personnel on the use of the enhancements, and to assist them in the development of standing operating procedures and CONOPS. Data recording and analysis equipment for the UFL 00 exercise were also installed and tested during this period.

The TSST Network enhancements were configured on 20 stations at various centers. The network resided on the Global Command and Control System–Korea (GCCS-K) Wide Area Net (WAN) and included the use of NetMeeting as a collaborative tool and the TSST Web Page. To support the use of the enhancements, a NetMeeting set-up and user guide was prepared and given to the positions along with a TSST Guide outlining the TSST process and enhancements. The TSST Guide was also available on the TSST Web Page.

UFL 00 was not the only joint exercise in which JWF participated. Blue Flag 00-2 was another excellent opportunity for JWF to baseline the joint targeting process, this time for U.S. Central Command (USCENTCOM). Blue Flag 00-2 was held from March 1-9, 2000, with exercise play running Mar 5-8, 2000. Blue Flag 00-2 was a CPX to train the USCENTCOM joint air operations center battlestaffs with limited involvement and support from the other USCENTCOM Service components. The exercise used a limited Southwest Asia scenario with ground forces in fixed, defensive posture. The exercise was hosted at Hurlburt Field, FL, with distributed support from:

- USCENTCOM & Navy Component Central Command (NAVCENT): MacDill AFB, FL
- U.S. Army Forces Central Command (USARCENT): Ft. McPherson & Ft. Gordon, GA
- USMC: Marine Corps Air Station Miramar, CA

JWF deployed 28 people to observe the exercise and record data on the players' TSST processes and procedures. Immediately following Blue Flag 00-2, USARCENT conducted Lucky Warrior to train the battlestaff in a ground offensive scenario. Two JWF personnel stayed over at Ft. McPherson to observe Lucky Warrior.

JWF also began preparations for data collection at Internal Look in November 2000 by attending the Internal Look 2000 Initial Planning Conference in December 1999, Mid Planning Conference in May 2000, and Master Scenario Event List Conference in June 2000.
JWF participated in a third joint working group for *Joint Publication 3-60 (Joint Doctrine for Targeting)* as a technical review authority.

TEST & EVALUATION ASSESSMENT

During UFL 00, use of the network enhancements increased as the exercise continued with the Air Combat Command and the Korea Combined Operations Intelligence Center being the predominant users. Some technical problems occurred but did not significantly affect TSST operations. Preliminary feedback indicates wide acceptance of the enhancements and their positive contribution to the process by making the exchange of information easier, faster and providing a record for follow-up. Both the CJ3 and the Deputy Commander In Chief expressed satisfaction with the enhancements, their desire to retain and grow the enhanced capability, and a willingness to assume future operational costs. Preliminary observations indicate that the enhancement package in the TSST process contributed to reducing joint TSST target ambiguities and increasing cross-component coordination in the prosecution of joint TSSTs. The effort is considered a successful operation.

During Blue Flag 00-2, the overall planning and execution of the test went well, and data and observations were gathered. The quicklook team confirmed that data were collected on 74 different TSSTs during the exercise, 56 of which were quality threads between multiple player nodes.

Several changes were incorporated based on the lessons learned in the UFL 99 and Blue Flag 00-2 after action reports. In turn, these reports will be key documents that enable us to continue to improve our operations as we prepare for later testing at Internal Look 00.

As a product of research into the lessons learned from Operation Desert Storm, the JWF team published a monograph discussing the most notable wartime problems encountered in the joint

environment when prosecuting TSSTs. These examples of the challenges incurred in conducting real-time targeting and the joint application of firepower will provide the Services with a relevant exemplar that can be used as an established point of departure in the training of battle managers. The monograph was published this year in *Defense Analysis* in the United Kingdom.

RECOMMENDATIONS

Recommendations based on JWF findings include:

- **Documentation of Operational Concepts and Tactics, Techniques, and Procedures (TTPs).** The documentation of the TSST process baselines will be of explicit value. There is near total agreement that documentation is a potential problem in our warfighting abilities. One hypothesis of JWF is that shortfalls in performance are related to the shortfalls in documentation. In addition to providing the comparative foundation for enhancement testing, the documentation and promulgation of the TSST processes will allow commanders an opportunity for objective scrutiny and provide trainers with the building blocks for tomorrow's curriculum. JWF will prepare a compendium of data that supports JT&E findings and outcomes concerning the operational concepts and TTP to effectively prosecute TSSTs. The documentation will address problem areas and recommend changes to enhance combat effectiveness. The users of this data will be the Joint Staff, combatant command staffs, the Service staffs, and the commanders and staffs of operational units. This data may also serve as a benchmark baseline of targeting transactions to support future improvement efforts.

- **Validation of and Input to Newly Approved Joint Doctrine and TTPs.** JWF will recommend changes to specific joint publications that should be made. JWF could produce requirements for a completely new publication. JWF will prepare recommendations and provide them to the Joint Staff, Services, and agencies as needed.

- **Recommendations for Joint Training.** JWF has identified potential enhancements to the training of individuals and Joint Task Force staffs as well as component commands/Service staffs in prosecuting TSSTs. As a result of the test activities, the team has gained expertise in the methods and processes needed to enhance joint operational training. Recommendations may concern proficiency standards, changes in the mix and echelons of units, assessment and feedback methods, and training methods involving live, constructive, and virtual simulations. Joint schools, as well as Service training schools, may receive recommendations on how to enhance their curriculum. These recommendations can also be incorporated into joint- and Service-hosted battle manager exercises to train battlestaffs on how to coordinate the efforts of multiple components.

- **Recommendations for System Requirements.** JWF results will be the basis for providing recommendations to the Joint Staff and the Services for developing or modifying systems to enhance the effectiveness of prosecuting TSSTs. It is anticipated that the JT&E team will identify problems in areas such as the interoperability of communications/data systems and the commonality and effectiveness of tactical situation displays. The JT&E team will prepare inputs that document such problems and recommendations on correcting them.

- **Recommendations for Joint Force Command Organization.** There are no joint doctrines that describe how a joint force should be organized for the command and execution of fires. JWF expects to document the various organizational structures currently in use along with the positive attributes and problem areas associated with each example.

- **Modification to the Universal Joint Task List (UJTL CJCSM 3500.04).** JWF will provide input to the UJTL, which currently contains no operational or tactical tasks for targeting TSSTs. As described earlier, the criticality of time-sensitive surface targeting warrants specific tasks in the premier joint training task list.

- **Additions to JCS-Approved Joint Definitions.** JWF will develop new and revised joint terminology definitions for incorporation into Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms. These definitions will improve the joint lexicon by clarifying the current terminology and defining new terms to better describe a JFC's responsibilities when conducting time-sensitive surface targeting.