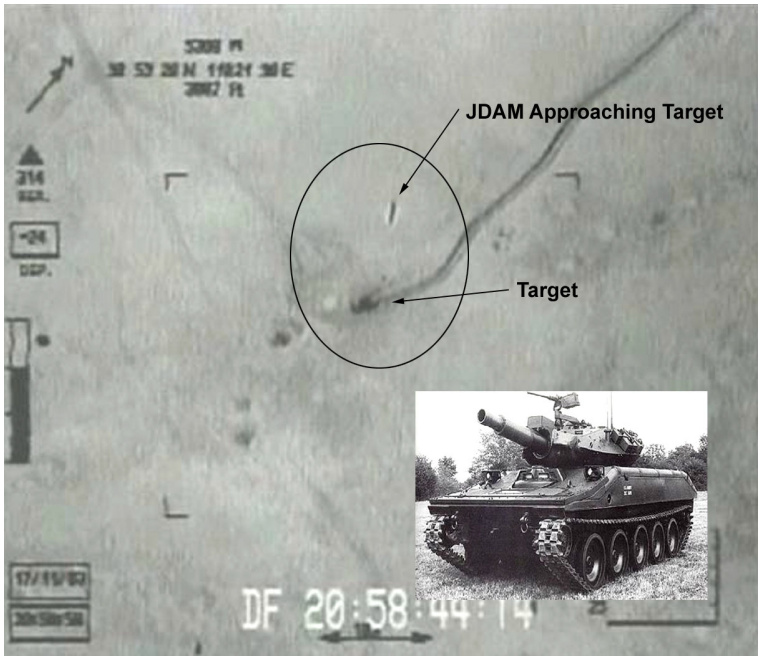
Joint Unmanned Aerial Vehicle in Time-Sensitive Operations (JUAV-TSO)

SUMMARY

- JUAV-TSO is a three-and-a-half-year test that is currently completing its final year. It is located at Fallon NAS, Nevada. The Navy is the lead Service.
- JUAV-TSO has completed two mini-tests and two field tests to date. Completing final phase of validation test in October 2004. Data analyses and final report have been accelerated by six months allowing for early shutdown of the test and transition of products to the warfighter.
- During FY04, conducted Field Test 2.
- JUAV-TSO implemented a test program to develop, refine, evaluate, and validate weapon-delivery methods, communications systems, control relationships, and command structures.



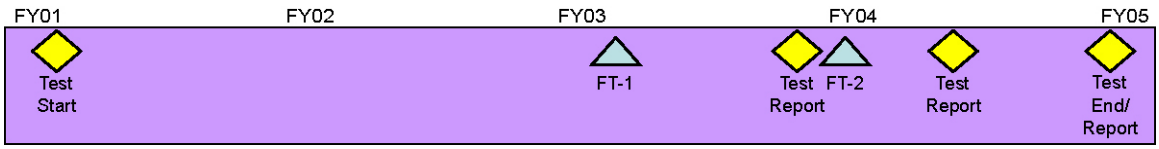
JUAV-TSO testing involves fixed-wing and rotary-wing air interdiction, artillery fire support, close air support, and personnel recovery within three command and control architectures.

TEST DESCRIPTION AND MISSION

The JUAV-TSO was chartered August 2001 to employ multi-Service and other Department of Defense agency personnel, support, and equipment to develop and document joint tactics, techniques, and procedures (JTTPs) for current and proposed tactical unmanned aerial vehicles (UAV). Historically, UAV mission areas included intelligence, surveillance, and reconnaissance. DESERT STORM in the Persian Gulf, Operations ALLIED FORCE in the Balkans, ENDURING FREEDOM in Afghanistan, and IRAQI FREEDOM showed the ability to expand UAV tactical employment during dynamic, time-sensitive, joint operations.

JUAV-TSO testing involves fixed-wing and rotary-wing air interdiction, artillery fire support, close air support, and personnel recovery within three command and control (C2) architectures. These architectures place weapon engagement decisions at various C2 nodes throughout JUAV-TSO-planned test events.

TEST AND EVALUATION ACTIVITY



FY04 testing included a JUAV-TSO JT&E capstone Joint Validation Test Event (JVTE). JVTE output is a set of JTTPs, provided to doctrine writers at the Air Land Sea Application Center, JFCOM, and the Services.

JUAV-TSO conducted FT-2 in conjunction with Marine Aviation Weapon and Tactics Squadron, Weapons and Tactics Instructor class 2-04 in Yuma, Arizona, in April 2004. JUAV-TSO conducted a multi-phased JVTE focused on data collection and validation of proposed JTTPs. JUAV-TSO subject matter experts developed a set of proposed JTTPs (during previous test events) for integrating UAVs into each mission area. JVTE was an opportunity to validate selected JTTPs.

In late January 2004, JUAV-TSO subject matter experts participated in a Global Hawk Air Force Tactics, Techniques, and Procedures 4-1 development conference at Nellis AFB, Nevada. This conference was the first opportunity for JUAV-TSO to directly influence the development of TTPs. JUAV-TSO's contribution was praised by the Global Hawk community. JUAV-TSOcontinues to work closely with the USAF Remotely Piloted Aircraft Center of Excellence (RPA COE) at Nellis AFB.

In FY04, JUAV-TSO supported numerous U.S. Navy Carrier Air Wing flight operations at Fallon by providing UAV system assets to augment pre-deployment training activities. While not considered structured JT&E events, flight operations provided the operational community venues in which to integrate a UAV platform into multiple training scenarios and JUAV-TSO staff opportunities to observe integration. Knowledge gained from these training events was used to refine planning activities associated with future JUAV-TSO field and validation test events.

TEST AND EVALUATION ASSESSMENT

JUAV-TSO products completed during FY04 include the JUAV-TSO MT-2 Report, the JUAV-TSO FT-2 Quick Look Report, and the FT-2 Test Event Report. To date, JUAV-TSO has evaluated the ability of tactical leaders to effectively and efficiently utilize UAVs in a tactical role within three C2 architectures. JUAV-TSO will develop joint, platform-independent TTPs for UAVs. These JTTPs will improve UAV employment in time-sensitive joint operations, with emphasis on air interdiction, fire support, and personnel recovery missions. JUAV-TSO maintains strong relationships in support of the JUAV-TSO mission to employ multi-Service and other DoD agency personnel, support, and equipment to develop and document JTTPs for current and proposed DoD UAVs in the tactical class of vehicles. All JUAV-TSO tests have produced invaluable data supporting the integration of time-sensitive tactical UAV operations in the warfighting community. The JUAV-TSO completion date is April 2005.