JOINT CLOSE AIR SUPPORT (JCAS)

Joint Close Air Support (JCAS) is a DoD Joint Test and Evaluation (JT&E) program chartered by OSD to assess the current capabilities of U.S. forces to conduct joint close air support (CAS) in both day and night conditions. The JCAS Joint Test Force (JTF) will also test and recommend potential enhancements to improve joint CAS effectiveness. To do this, the JTF will employ multi-Service air and ground equipment and personnel in realistic combat training scenarios. The test will address two critical issues:

1. What is the joint CAS baseline effectiveness?
2. What changes to Joint CAS Tactics, Techniques, and Procedures (JTTP), equipment/systems, and training increase effectiveness compared to the baseline?

BACKGROUND INFORMATION

The last DoD joint test of CAS JTTP was completed more than a decade ago. Since then, new weapons and support systems technologies such as Global Positioning System, secure communications, advanced electronic warfare devices, and night-vision devices have been adopted by both ground and air forces. As interactions among ground and air support forces evolved, corresponding JTTP for effective CAS developed in an *ad hoc* manner. Service manpower levels combined with an increased operational tempo have potentially had an adverse effect on CAS training and operational readiness. JCAS is intended to benchmark CAS operational effectiveness today and offer improvements for the future.

JCAS was chartered in 1997 following a feasibility study. In the first year, the JTF completed and OSD approved the JCAS program test plan. The JTF coordinated and completed signed memoranda of agreement with all necessary support units and arranged operations facilities. At the suggestion of the Joint Chiefs of Staff, the JCAS charter was expanded in 1998 from *Joint Night CAS* to *Joint CAS* to address both day and night CAS operations.

The primary JCAS test site is the National Training Center (NTC) at Ft. Irwin, CA. The JCAS JTF conducts testing at NTC on a non-interference basis with regularly scheduled brigade-level training sessions conducted by rotating Army operational brigades against a permanent opposing force stationed at NTC. The Air Warfare Center at Nellis AFB, NV provides CAS attack and forward air controller airborne sorties.

Initial test operations began with a mini-test conducted in November 1998 at NTC to determine the contribution of visual control of CAS aircraft in daylight, medium altitude conditions. JCAS field-testing began in earnest in March 1999. Since then, the JCAS JTF has completed data collection, reduction, and analysis of nearly 40,000 data elements addressing over 200 joint CAS measures. The JTF published the *JCAS Interim Report* in 2000, focusing on the day joint CAS baseline. The focus of future testing will be on the night joint CAS baseline and evaluating proposed joint CAS enhancements.

TEST & EVALUATION ACTIVITY

In fall 2000, the JTF refined the instrumentation and data requirements for Twentynine Palms and in January and February deployed there for data collection. At Twentynine Palms, the JTF verified they could deploy to an alternate venue, collect CAS data on a different Service, employ a man-portable instrumentation system, and instrument a non-instrumented range. JCAS also verified their data collection procedures and CAS model are valid in another venue. Ongoing deployments to the National Training Center (NTC) and Twentynine Palms allow the continual refinement of instrumentation and data collection requirements.

The JCAS JTF wrote chapters 3, 4, and 5 (Planning, Preparation, and Execution) of the new Joint Pub 3-09.3, Joint Tactics, Techniques, and Procedures for Close Air Support (CAS) and pivotally engaged in the development of the JROC-sponsored CAS Joint *Concepts Requirements Document* (CRD).

TEST & EVALUATION ASSESSMENT

JCAS is a needed test at the right time. Experts in the CAS world routinely look to the JCAS JTF to formulate recommendations for improvements to joint CAS operations. As our weapon systems become more capable and potential enemy forces become steadily more capable, U.S. forces must capitalize on the strengths of leading-edge technology. While many weapon systems embody impressive technical functions, their actual employment on the battlefield as part of a greater strategic picture will determine the outcome of future combat. By leveraging off the large-scale and realistic brigade-level combat training at NTC and other training venues like MCAGCC, JCAS promises to provide realistic information that can be used to direct future research and development activity toward efforts with the greatest potential benefits.

DOT&E supports the continuation of the JCAS efforts and agrees with the need to continue this effort as requested by the Joint CAS ESC as a legacy organization that can assist in the improved effectiveness of this critical mission area as technological improvements and enhancements are introduced.