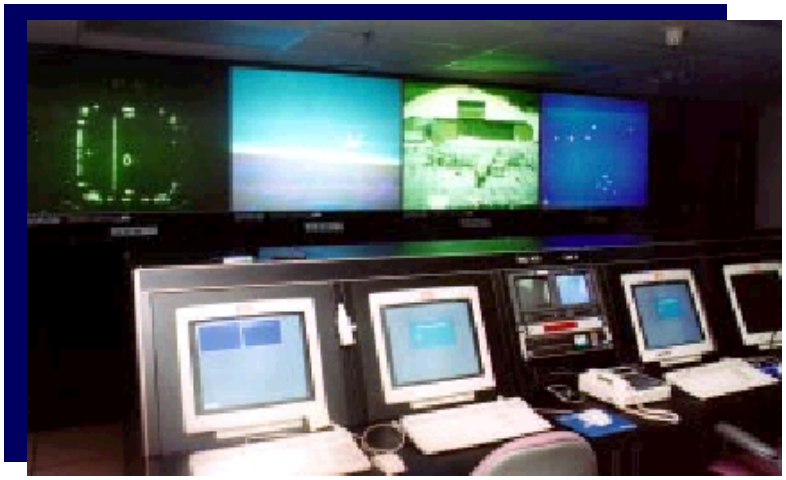
# ACETEF

*Air Combat Environment Test and Evaluation Facility*

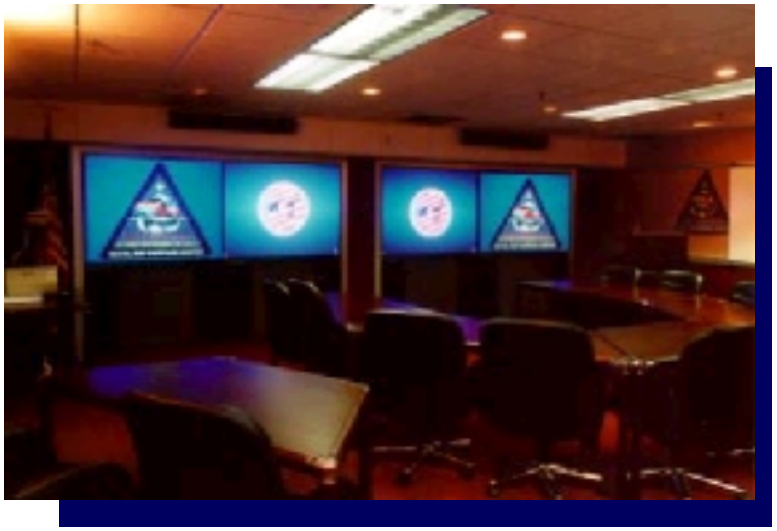
## Operations and Control Center



The Air Combat Environment Test and Evaluation Facility (ACETEF) Operations and Control Center (OCC) provides the cornerstone for total integrated, multiplatform ground testing. OCC is the "nerve center" for ACETEF, coordinating and controlling integrated ACETEF laboratory testing. OCC incorporates two command and control centers, one red and one blue. The OCC is responsible for developing and operating the Simulated Warfare Environment Generator (SWEG) and managing Simulated Warfare Environment Data System (SWEDAT) interfaces during integrated ACETEF operations. SWEDAT is ACETEF's unique run-time interface technology; it contains no starting assumptions, restrictions, or limitations regarding what an asset is (or can be) and how assets will interact with SWEG during a scenario. External assets can be system stimulators (radio frequency/ electro-optical/infrared), man-in-the-loop simulators, remote simulations, non-ACETEF laboratories, or actual aircraft. The SWEG threat generation is a software model that is the core of the OCC, generating the threat scenarios and maintaining control of red and blue players. SWEG interfaces allow the ACETEF to stimulate a system under test with mutiple simultaneous sensors in a coherent, combat realistic manner. SWEG permits the modeling of multiple contingency actions within the echelons of a military force in an evolving conflict environment. SWEG also has the capability to model explicit communications between various players, including messge content, context, and connectivity. These features provide ACETEF with the capability to test, analyze, and evaluate a myriad of complex problems in conflict environments having unparalleled realism and relevance to current national security strategies, military doctrines, tactics, and procedures. Test execution, data distribution, and test instrumentation are controlled by the OCC.

## ACETEF Command Center (ACC)

The ACC Command Center currently hosts VIP briefings, and serves as a wargaming and analysis camp facility. Within a wargaming evolution, the room can be reconfigured to support the building blocks for the successful development of the next generation strike weapon system, such as the Joint Strike Fighter (JSF). The JSF is the Department of Defense focal point for defining affordable next-generation strike aircraft weapon systems for the Navy, Air Force, Marines, and our allies. The ACC has supported JSF in employing integrated teams of warfighters and technologists to achieve an affordable balance of performance for future strike systems. It serves as an integrated test facility for the ACETEF laboratories. The ACC can display an integrated real-time test within a simulation environment, incorporating all capabilities of the ACETEF laboratories.



*Approved for public release;distribution is unlimited*

## ACETEF Advanced Visualization Laboratory

The ACETEF Advanced Visualization Laboratory is a state-of-the-art facility used to demonstrate the real-time within a simulation environment. The laboratory contains four 100-inch diagonal rear projection displays mounted for optimum viewing of a single seamless image displayed across all four displays. This laboratory is connected to the ACETEF video infrastructure such that any ACETEF laboratory video source can be brought into the visualization laboratory. Using the knowledge of order of battle, systems, tactics, and use of intelligence data bases, wargaming scenarios are developed to evaluate systems under test. The ACETEF Advanced Visualization Laboratory provides the capability to view a graphics representation of a realistic combat wargaming simulation. This facility allows ACETEF to demonstrate the implementation of a modeled interaction of players (e.g., battle group, aircraft, ships, tanks, surface-to-air missiles sites, weapon systems, troops, etc.) in a controlled scenario where selective player and/or player components are replaced with higher fidelity assets, including platform under test, hardware/software in the loop, and man in the loop.

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