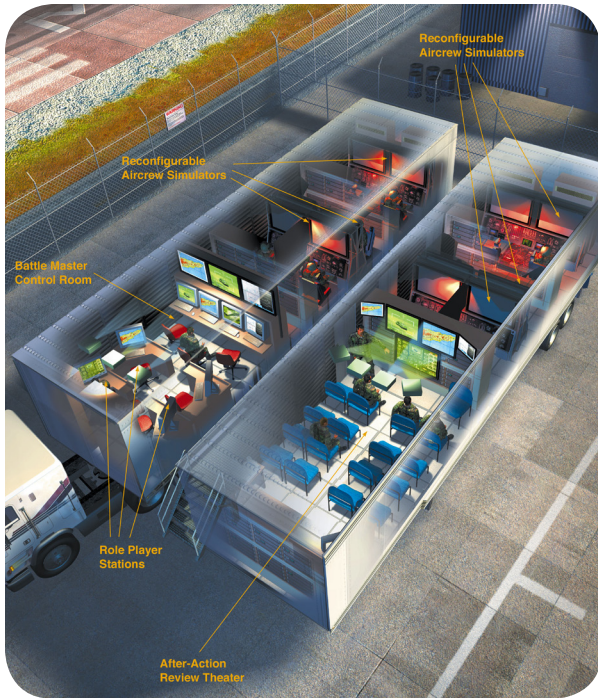


HELICOPTER COLLECTIVE AIRCREW TACTICAL TRAINER (AVCATT)



Meeting the Demands of Army Aviation Combined Arms Training



The Aviation Combined Arms Tactical Trainer (AVCATT) program is based on the “one Army, one simulator” concept. AVCATT provides both active and reserve component U.S. Army aviation units with a realistic, high intensity virtual combat training environment for helicopter pilots, crews, units, commanders and staffs. Twenty-three AVCATT suites have been delivered to date, each system supporting one Army brigade.

Designed to support the Army’s full mission spectrum of attack, reconnaissance, utility and cargo helicopters, these transportable training devices support a dynamic and integrated air/ ground training environment when networked to and interoperable with the Army’s other Combined Arms Tactical Trainer (CATT) programs. The trainers also produce a tough, realistic environment in the stand-alone mode through computer generated forces and role player stations.

AVCATT enables the Army to enhance and sustain aviators’ collective training skills within simulated combat environments that present challenging interactive opposing forces. During this era of increasing constraints on live field training exercises, AVCATT also provides the ability to use simulation to affordably support improving aviator skills in the use of aircraft weapon systems.

INDIVIDUAL THROUGH BRIGADE UNIT PROFICIENCY

AVCATT provides simulation fidelity that supports immersion into the training exercise for the individual aviator and groups of aviators at the unit level. Depending on the scope of the training exercise, “unit level” may refer to an individual aviation company, a task force or other warfighting unit. The capability to coordinate with higher-level staff personnel is essential.

In support of these objectives, AVCATT provides tailored cockpit and training environment fidelity, in addition to optimized visual Helmet Mounted Display (HMD), sensors, weapons, weather, mission planning system and data base correlation. System interoperability supports integrated, realistic training that enables Role Players and the Battle Master Controller to interact with participants, increase task loading and enhance air and ground coordination.

AVCATT’s communications interface to Tactical Operations Center (TOC) supports higher-level staff training. AVCATT also is designed to meet potential future CATT interoperability requirements.

COCKPIT MANNED MODULES

Using the most recent advancements in reconfigurable simulator technology, AVCATT simulates any combination of AH-64A, AH-64D, UH-60A/L, CH-47D and OH-58D Army platforms. The use of a common base module and electrical interfaces enables easy reconfiguration that supports rapid cockpit changes to meet specific training and mission needs.

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VIRTUAL ENVIRONMENT

Intelligent semi-automated forces support a realistic, virtual training environment. These forces, both friendly and opposing, contribute to a highly competitive combat environment that maximizes training effectiveness. This environment, coupled with state of the art visual and sensor imagery, enables Army aviators to train under a wide range of simulated conditions. Battlefield smoke, blowing snow, dust, sand, temperature, wind, visibility and cloud ceiling levels all can be replicated under day, dusk or night environments.

ADVANCED DISPLAY SOLUTION

To simulate the wide range of Army helicopter platforms, L-3 Link uses an HMD visual display solution that provides high resolution, wide field-of-view out-the-window imagery.

COMBINED ARMS TRAINING

AVCATT incorporates the present and future vision of force/collective training to support brigade-level combat readiness. Key objectives include the ability to support CATT fair fight interoperability; Distributed Interactive Simulation and High Level Architecture to link to future joint virtual and constructive simulations; scalability to support individual through task force training requirements and multi-echelon training using computer generated forces.

AFTER ACTION REVIEW

This “full spectrum” record and playback capability provides commanders and training exercise participants an opportunity to evaluate actions, both individual and collective, as well as operational effectiveness.

LEADER DEVELOPMENT

The development of skilled and effective leaders requires both training and practice. AVCATT provides the commander with a “God’s-Eye-View” and the ability to control the training exercise. Commanders are given an effective tool to coach, teach and mentor their troops. The ability to show what ‘right’ looks like in a collective training environment provides unprecedented leadership training opportunities.

MISSION REHEARSAL

Mission rehearsal capability requires the ability to rapidly adapt to changing world conditions and locations. To meet this requirement, AVCATT’s design provides rapid deployment capability by land, sea or air; compliant power interfaces to support installation anywhere, anytime; an open data base format that supports SEDRIS-compatible data bases; and highly interactive friendly and opposing forces.

LOW LIFE CYCLE COST

AVCATT’s key design and supportability elements that reduce life cycle costs include ease of maintenance that minimizes manpower needs, an open architecture that enables future capabilities growth and technology insertion via use of commercial off-the-shelf equipment, common designs across simulated aircraft platforms, and open data base formats.

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Link Simulation & Training

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