The Marine Common Aircrew Trainer (MCAT) is a multi-platform, multi-mission, realistic simulation trainer focused specifically on Enlisted Aircrew personnel. Kratos' solution is a reconfigurable device which provides an economical, flexible simulator to hone crew resource management skills in a networked, fully immersive environment. Kratos will design, develop, manufacture, test and provide initial support for five MCATs, to be delivered to North Carolina, California, Hawaii and Japan to meet the United States Marine Corps' (USMC) aviation training requirements.

Reconfigurable Design Increases Trainer Utility, Cost Effectiveness
As a unique reconfigurable trainer, MCAT affords USMC Enlisted Aircrew the capability to train on three different platforms in one trainer: CH-53E Super Stallion, UH-1Y Venom and MV-22B Osprey. MCAT represents a significant step forward in Aircrew training as it provides a venue for training USMC Helicopter and Tilt-rotor aircrew in simulated day, night, and all weather conditions with stand alone (non-networked) and linked modes (networked). The MCAT provides training mission execution in a simulated environment reducing current flight hour requirements.
State of the Art Aircrew Training System

As a multi-mission, day/night, night vision system trainer, MCAT has three large display domes surrounding and extending under the cabin section of the trainer. It provides aircrew a realistic out-the-window view of the virtual environment to include a view for external cargo operations for all three platforms represented. The trainer, with it's standalone or linked operational capability, operates independently, with other MCAT devices or with pilot flight training devices. It can be networked to other devices via the Aviation Distributed Virtual Training Environment (ADVTE). Weaponry for all three airframes is included and each trainer simulates actual weapons with windage force feedback, muzzle flashes and validated trajectory data.

MCAT Configurations

MV-22B  CH-53E  UH-1Y

Enhancing The Training Experience

Kratos continues to drive technology advancement among simulation companies by delivering customer preferred training solutions in a cutting edge training system. MCAT will deliver world-class training to the warfighter by improving crew integration and complementing current training syllabi's while enhancing mission readiness. MCAT allows Enlisted Aircrew to train in a realistic environment with their personal gear which builds a synergy amongst the entire flight crew in specified flight profiles and mission sets. A list of some of the key features and missions sets available:

- Customized Scenario Generation and Execution, Crew Coordination Training, Standalone and Networked training modes, All Weather Operations training, High Fidelity Cabin Configurations
- Helicopter Insertion and Extraction
- Tactical Flight Regimes
- Confined/Mountainous Area Landings with Variable Brown-out
- Shipboard Operations
- Stimulated Night Vision Goggle Operations
- External Lift Operations
- Aerial Gunnery (M240G, GAU-17, GAU-21)

Kratos continues to demonstrate a commitment to the warfighter by developing trainers and coordinated courseware to enhance mission readiness, which allows for dynamic resiliency, increased real mission preparedness and improved mission safety.