



EA-6B Technology Upgrades

ICAP II BLOCK 89A DEVICE 2F143

Kratos is proud to support the Naval Air Training System Division (NAVAIR Orlando TSD) by leading the effort to upgrade Device 2F143 SN2, EA-6B Operational Flight/Navigation Trainer (OF/NT), located at the Marine Corps Air Station, Cherry Point, North Carolina.



In July 2006, Kratos completed technology upgrade effort by replacing the existing Encore RSX computer, Reflectone Alpha 1 Digital Aural Cueing and Control Loading Systems with PC-Based solutions. In September 2006, Kratos was awarded a new Delivery Order to continue Device 2F143 SN2 technology upgrades by upgrading the visual system, to include a new Image Generator System and integrating new projectors into the existing Image Display Subsystem, and enhance the trainer by making it interoperable in a simulated tactical environment on the Tactical Environment Network (TEN).

The upgrades completed in July 2006 included:

- Replacing existing Encore RSX computer with a PC-Based solution. Existing Fortran and Assembly Source Code were relocated to the new PC solution. New Interface Code was written to support new subsystem interfaces for the Aural Cueing and Control Loader Subsystems.
- Replacing existing Reflectone Alpha 1 Digital Aural Cueing hardware system with a PC-Based solution. The new system software was coded to replicate all the aircraft environmental sounds, provided by the Alpha 1, and respond to all applicable aircrew input and environmental changes.
- Replacing existing Reflectone Alpha 1 Control Loading System with a PC-Based solution, as provided by our subcontractor Simulation and Control Technologies (SCT), Inc. The new system was designed to replicate all aspects of Control Loading that was provided by the old system, without degrading the timing and synchronization.
- Providing revisions to existing Engineering and Logistics Documentation to reflect the changes.



Hardware development efforts included the design, fabrication and installation of electrical cables and assemblies and removal of the old system's components. The Technology Upgrade Program also required that installation, integration and test of the upgrades be conducted with minimal impact to the training schedule, which required our design to accommodate parallel development and training efforts.



The upgrades to be performed under the new Delivery Order include:

- Primary Flight Display (PFD):
 - EADI/EHSI/ALT/IAS/VSI/AP Moving Map
- Image Generation System (IGS) replacement
 - Aechelon pC-Nova with PC IG
 - 4 OTW channels
 - TEN Mission Functions Processing
- Visual Database (VDB) replacement
 - MV-22 CFTD-2 visual database from 2F200 with EA-6B model
 - Correlated with TEN DB
- Image Display System (IDS) replacement
 - 4 VDC 9500 CRT projectors with SEOS edge blending & RCU
- Veraxx Engineering Corp. TEN PC Product A00356 pre-loaded with:
 - Operating System
 - Interface Cards
 - GFI Software
 - Symmetricom XL-AK GPS receiver
 - KVM for IOS / TOS switch
 - Tactical Formatter
 - Upgraded software LCRS/DTC/IOS software

