THE MBRAT-II
Black Hawk M, Avionics
Lowering Procurement Costs and Faster Delivery

A New Concept In Blended Reconfigurable Devices Allowing Maintenance Procedures Training for Black Hawk M Avionics Maintenance Training

The Maintenance Blended Reconfigurable Aviation Trainer (MBRAT) is a revolutionary concept, virtually immersive, full-task trainer. The MBRAT uses a cost effective blend of Computer Based Training (CBT) and replicated physical controls. The combination provides the best of both worlds: an immersive physical, visual and tactile environment that yields an effective training environment and can be delivered at a fraction of the cost and fielding time of full fidelity maintenance trainers. The MBRAT can be installed at an institution to support school instruction, or delivered in a mobile configuration to facilitate the deployment of the training to the Warfighter.
KRATOS completed the initial Black Hawk Avionics MBRAT-I variant which effectively trains most Maintenance Operational Checks (MOCs), cockpit fault identification and selective fault isolation tasks. Currently under development is the MBAT-II variant allowing the Students to virtually immerse themselves one step further in the training continuum by performing all required steps in fault isolation, and remove and install tasks, while utilizing all required tools and test equipment in the virtual world through the use of Commercial-Off-The-Shelf touch-screen technology. The combination of classroom, interactive multimedia instruction via CBT, the immersion of the MBRAT and the full fidelity of the Black Hawk Avionics Trainer (BHAT-M) provides the ideal blend of learning required for the full spectrum training experience demanded by the Warfighter.

The Black Hawk M configuration MBRAT-II is designed to provide the opportunity to master MOC’s, fault detection and fault isolation, and remove and install tasks, in a virtually immersive environment for all avionics sub-systems listed:

- Air Data System
- Blue Force Tracker
- Civil NAV (Navigation)
- Data Transfer Set
- Ethernet Switching Hub
- Digital ICS (Inter-Communication Set)
- ESIS (Electronic Standby Instrument Set)
- ESIS Battery OPERATIONAL CHECK
- EGI (Embedded GPS ([Global Positioning System] and INS [Inertial Navigational Set]))
- FDS (Flight Director Set)
- Flight Mission Display Set for pilot and copilot
- FMS (Flight Management System)
- IFF (Identification, Friend or Foe)
- IHUD (Integrated Heads Up Display)
- Improved Data Modem
- LF/ADF (Low Frequency / Automatic Direction Finder)
- Radar Altimeter
- Storm Scope
- VHF (Very High Frequency) FM (Frequency Modulation) RADIO
- Radar/Laser Detecting
- LOS (Line of Sight) / MULTIBAND AN/ARC-231 RADIO
- LOS (Line of Sight) / SATCOM (Satellite Communication) AN/ARC-231 RADIO

Interactive Multimedia Instruction via CBT  MBRAT Blended  BHAT-M