CH-47F MBRAT
Maintenance Reconfigurable Aviation Trainer

A Blended Reconfigurable Device Allowing Maintenance Procedures Training for CH-47F Chinook Avionics Maintenance Training (CAT)

The CH-47F MBRAT is a full-task trainer that invokes a virtual immersive environment, spatial physical awareness coupled with proven CH-47F Chinook simulation software. This device trains equipped Maintenance Operational Checks (MOCs), cockpit fault identification, and selective fault isolation tasks of the CH-47F Chinook aircraft. Our trainer uses a cost effective blend of simulation based modeling and replicated physical controls. The MBRAT can be used in stand-alone mode, as an Instructor Led Training platform or to offload initial MOC and Fault Isolation tasks from the more complex CH-47F CAT thereby enhancing the effectiveness of the task to training media allocations. The device is Information Assurance Compliant and designed to fit through a standard 36 inch door frame. MBRAT can also be configured into multiple units controlled by a single Instructor/Operator Station.

The MBRAT effectively trains (MOCs), cockpit fault identification and selective fault isolation tasks. The MBRAT can easily be enhanced to perform all required steps in fault isolation, & completion of remove/install tasks. This additional capability also allows students to use all required tools, test equipment and test sets in the virtual world through the use of Commercial-Off-The-Shelf (COTS) touch-screen technology. The combination of Interactive Multimedia Instruction, the MBRAT and the full fidelity CH-47F Chinook Avionics Trainer (CAT) provides for the ideal application of blended learning, resulting in a full spectrum training experience for the Warfighter.

The MBRAT can be modeled to support 31 CH-47F Avionics Systems along with 213 Faults using the same proven software package as installed on the CH-47F Chinook Avionics Trainer.

Typical training tasks include trouble shooting, isolation of faults and restoration of functionality for the following systems:

• **Emergency/Auxiliary Control Panel**
• **Pitot-Static System**
• **Common Missile Warning System (CMWS)**
• **Air Data Computer (ADC)**
• **Radar Altimeter System**
• **Radar Warning System (RWS), AN/APR-39 (V)**
• **IFF AN/APX-123(V)**
• **VHF-FM SINCGARS Radio AN/ARC-201D (V)**
• **AN/ARC-220 (V) High Frequency Radio**
• **VOR / ILS / MB**
• **Automatic Direction Finder (ADF)**
• **Tactical Airborne Navigation (TACAN) System**
• **Heads-Up Display System (HUD)**
• **Blue Force Tracker (BFT)**
• **Control Display Unit 7000**
• **EGI**
• **CVR / FDR**
• **Digital Advanced Flight Computer (DAFCS)**
• **Data Concentrator Units (DCU)**
• **DIGITAL MAP SYSTEM (DMS)**
• **Data Transfer System (DTS)**
• **Electronic Standby Instrument Panel (ESIS)**
• **General Purpose Processor Unit (GPPU)**
• **Digital Intercommunications System (DICS)**
• **Improved Data Modem (IDM)**
• **Multi-Function Control Unit**
• **Multifunction Display (MFD)**
• **Storm scope, WX-500**
• **FM/VHF/UHF Radio, AN/ARC-231**

Kratos Training Solutions specializes in assuring the readiness, reliability and operational effectiveness of Warfighter systems by supplying lifecycle Training Solutions to its defense, government and commercial customers.

Realistic cockpit interactions enable immersive avionics system simulation. MBRAT provides student training through simulation of the CH-47F cockpit on multiple touch screen monitors.

Provides virtual test set to troubleshoot and diagnose faults. Modeled after tactical test set. The MBRAT enables students and instructors to perform Remove and Replace Tasks, component troubleshooting, along with the use of simulated virtual aircraft test sets.

Configuration Part Number:

• MBRAT-47F-A9.2 reflective of CAAS 9.2 and associated training tasks as identified in Table 3 - Avionic Mechanic Critical Tasks.

• MBRAT Part Number Breakdown:

    • MBRAT- Denotes the basic device type (In this case a Virtual Immersive Environment (VIE) device.

    • 47F-Denotes the aircraft platform (In this case the CH47F Chinook

• A9.2- Denotes the system package (Avionics in this case) and current Software load version (CAAS 9.2 in this case) The hardware suite shall consist of:

a) Maintenance Blended Aviation Trainer (MBRAT) trainer
b) Graphics Cart
c) Digital Automated Flight Control System (DAFCS) Laptop
d) Power conditioners

Please call for more information and pricing options

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