KC-135 BOSS
BOOM OPERATOR SIMULATORS

FAAC
INCORPORATED

REAL EXPERIENCE.
REAL TRAINING.

KC-135 BOSS BACKGROUND

The U.S. Army Program Executive Office for Simulation, Training & Instrumentation (PEO STRI) selected FAAC to build the Air National Guard's (ANG) Boom Operator Simulation System (KC-135 BOSS). The KC-135 BOSS is a high fidelity trainer for the ANG boom operators that replicates the KC-135R Block 40 boom pod.

The KC-135 BOSS provides an immersive simulation environment which utilizes realistic computer generated images, head tracking technology, high fidelity boom and aircraft physical models with emulation of the actual aircraft boom controls.

FAAC has fielded 17 KC-135 Boom Operator Simulation Systems to Air National Guard CONUS and OCONUS locations. KC-135 BOSS is intended for squadron level training to be co-located with operational KC-135 air refueling wings.

MILITARY
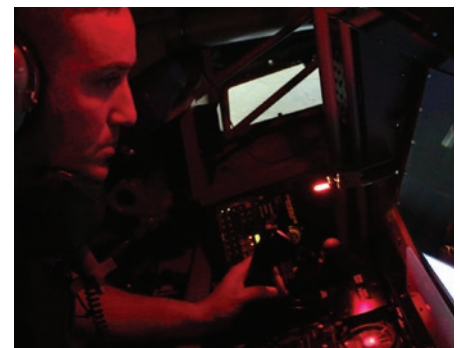## SIMULATION TRAINING
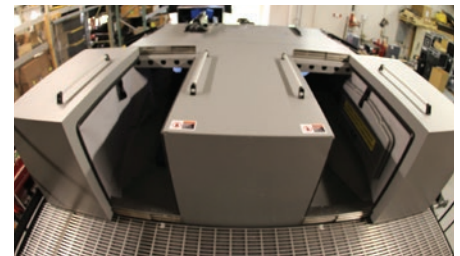
MORE PERFORMANCE.
BETTER TRAINING.

KC-135 BOSS HIGHLIGHTS

FAAC's KC-135 BOSS simulator is a state of the art training device capable of providing a high fidelity immersive training environment in a compact device. The KC-135 BOSS is designed to support complete boom operator training curriculum (Initial Qualification, Difference Qualification, Certification, Re-qualification, Mission Certification and Instructor Upgrade Training) and meet Aerial Refueling Airplane Simulator Qualification (ARASQ) standards. It is designed for squadron level training and to be operated by unit personnel with the option of dedicated on-site contractor personnel.

KC-135 BOSS FEATURES

- Fully replicated KC-135R boom pod and controls/gauges
- Advanced high resolution out-the-window display
- High fidelity aerodynamic models
- Head tracking
- Voice recognition and synthetic response
- Sophisticated and detailed visual models
- Full recording and debriefing capability
- Small footprint
- Simplified Operation and Maintenance
- Fully IA Compliant

KC-135 BOSS BOOM OPERATOR FEATURES

- Advanced Visual Display System
  - State-of-the-art WQXGA (2560 x 1600) LED Projectors
  - Head Tracking offers unique ability to accurately change simulator visual perspective. A critical technology for boom operator training that provides an enhanced level of depth perception by being able to "see" around objects.
- Voice Recognition and Synthetic Response
  - Integrates industry leading commercial voice recognition technology.
  - Voice recognition triggered auto-progression moves scenario ahead without Operator
  - Synthetic voice response includes up to 30 distinct voices and accents
  - Synthetic Receiver and Tanker pilots respond directly to boom operator voice commands
- Recording and Debrief Software
  - Missions can be replayed within simulator, or debriefed at the IOS or at a dedicated debrief station
  - Debrief software recordings drive virtualized controls and gauges to recreate the mission environment.
- Flight Models
  - High fidelity boom aerodynamics and receiver bow wave models
- Multi Point Refueling System (MPRS) Simulation
  - System provides replication of MPRS Pod Control Panel and wing pods including malfunctions and checklists.
- IOS
  - Compartment touch screen IOS enables full operation of the simulator from within the pod
  - Choose from 26 different receivers
  - Contains 100+ selectable malfunctions
  - Multiple formations, rendezvouses and maneuvers
- DMO Capable
  - DIS interface for Air Refueling Distributed Mission Operations Training
- Compact Size
  - Footprint 22' x 21', fits within 27' x 30' room with 12' ceilings
  - Disassembled system can fit through double door
- Simplified Operation and Minimal Maintenance
  - Simplified operation allows Guardsmen to train after hours or on weekends without dedicated simulator personnel
  - Instructors can create a syllabus of training missions ahead of time that automatically appear when the student logs into the device.
- Warranty Service
  - On-call KC-135 BOSS Help Desk staffed by experienced FAAC technicians is available if the need arises and can be on-site within 48 hours of a service issue.

AIR WARFARE SIMULATION DIVISION:

KC-135 BOSS is a product of FAAC's Air Warfare Simulation (AWS) Division. FAAC's AWS Division has been developing real-time simulations for over forty-five years. Our simulation technology established and remains the standard for weapon assessment for air combat training devices worldwide. FAAC's AWS Division also provides highly accurate weapon employment zone assessments in the actual aircraft through our embedded Zone Acquisition Process (ZAP) product. Today, all US fighter aircraft are gaining a tactical advantage through the use of our revolutionary ZAP program. FAAC's Air Warfare Simulation Division supports consistent and accurate weapon information for live combat missions, live training events, and virtual simulator based training.

AWS capabilities include:
- Weapons Simulation
- Air Combat Training Software
- Tactical Weapon Engagement Zone (WEZ) Software

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